

**FAMILIARIZATION TRAINING COURSE
FOR THE
NEW TACTICAL FORECAST SYSTEM
(NTFS 3.1.1)**

UNIT 1: OVERVIEW OF NTFS

3.1.1

TRAINING COURSE

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Hardware Enhancements.**

- Provide Intel Server Option.

- Workstations.

- Red-Hat Linux 7.1 Operating System.

- 73GB External / 18GB Internal Hard Drive.

- 21" Color Monitor.

- Dell PowerEdge 2500 Single Option.

- Single 1.13GHz P3 w/512KB Cache.

- 512MB RAM.

- Dell PowerEdge 2500 Dual Option.

- Dual 1.13 GHz P3's w/512KB Cache.

- 1024MB RAM.

TRAINING COURSE

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Hardware Enhancements.**
 - Provide Intel Server Option.
 - Workstations.
 - Dell PowerEdge 6600 Quad Option.
 - Quad 1.4GHz P4 Xeon's w/512MB Cache.
 - 1024MB RAM.
 - Redundant Hot-Swap Power Supply and Cooling Fans.

TRAINING COURSE

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Hardware Enhancements.**
 - Provide Intel Server Option.
 - Deployable Laptops.
 - Dell Latitude C840.
 - Single 1.6GHz P4 w/512KB Cache.
 - 1024MB RAM.
 - 60GB Hard Drive.
 - 15" Color LCD (1600x1200).
 - Red-Hat Linux 7.1 Operating System.
 - Installed with VMware.
 - Allows Server and Client SW on Same Platform.

UNIT 1: OVERVIEW OF NTFS

3.1.1



PowerEdge 2500



PowerEdge 6600



Latitude C840

TRAINING COURSE

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Hardware Enhancements.**
 - Stand-Alone Local Weather Network System (LWNS) Server.
 - FAA, ANG, and USAFR Support.
 - Upgrade FCF/ATC Monitor and Keypad.
 - Processor Upgraded in NTFS 2.0.
 - 9" or 15" Color Monitor.
 - Upgraded Keypad to Support New Capabilities.
 - Similar to Existing FCF/ATC Keypad with New Face Plate.
 - Finger-Mouse Added.

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Software Enhancements.**
 - Ported SPARC Server SW to Solaris 8.
 - Ported Server SW to Red-Hat Linux 7.1.
 - Created LWNS/ATC and Local Operations Client (LOC) Software.
 - Planned to Replace Current FCF/ATC Hardware and Software.
 - FCF/FO's Are No Longer Supported.
 - Uses Windows NT/2000 OS.
 - C/DM May Still Be Required.
 - Legacy FCF/ATC's are Still Supported.

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Software Enhancements.**
 - System Manager/CSSO Enhancements.
 - Secure Shell (SSH) for Remote Maintenance Support.
 - Secure Socket Layer (SSL) Support.
 - IP Filters (Firewall) Support.
 - Users Report.
 - LWNS Position Creation.
 - LWNS Product Catalog Maintenance.
 - Option to Not Delete FTP'd Files From Source System.
 - NITF Product Staging.
 - Capability to Change Default Primary ICAO.

TRAINING COURSE

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Software Enhancements.**

- A/N Enhancements.

- Capability to Ingest WMO Formatted A/N Data via FTP.
 - Added a "Merged Obs" Display From Launch Pad.
 - Moved Wind Shear Remarks Between Sky and Icing in TAF Format.
 - Warning, Watch, and Advisory Receipt Acknowledgements From LWNS Clients.
 - Receipt Acknowledgement Report (RAP).
 - Capability to Produce Automated TAFVER Reports.
 - Capability to Transmit Form 3813 Information to AFCCC.
 - Capability to View CWT LWDS From OWS Without Logging Into CWT.

TRAINING COURSE

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Software Enhancements.**
 - Graphics Enhancements.
 - Customized Area-of-Interest (AOI) Backgrounds Using Hi-Resolution DTED and GTOPO30 (Terrain/Elevation Data) Mapping Information.
 - Added EXTERNAL GIF/JPG Location and Parameter Filters.
 - Uses Long ASCII Header (LAH) Information.
 - Similar to Product Viewer->Other Weather Products Search.
 - Local Caching of METSAT/NEXRAD/NITF Products and Backgrounds.
 - Ingest, Display, Creation, and Transmission of NITF Products.
 - Capability to Remove a Single Product From a Loop Sequence.

UNIT 1: OVERVIEW OF NTFS

3.1.1

- **NTFS 3.1.1 Software Enhancements.**
 - Misc. Enhancements.
 - Capability to Receive Urgent and Routine Alerts via FTP.
 - NTFS and LWNS Clients.
 - Browser Creation of Backgrounds Using Hi-Resolution DTED and GTOPO30 (Terrain/Elevation Data) Mapping Information.
 - Capability the Retrieve/Store GIDS Products at the NTFS Server, and FTP Fetch GIDS Products Using the GIDS Viewer.

UNIT 2: LINUX SERVER OPERATIONS

UNIT 2: LINUX SERVER OPERATIONS

- **All User Operations and MMI Are Identical to the SPARC Server.**
 - Effort Made to “Map” SPARC Openwindows Look-and-Feel to Linux fvwm Look-and-Feel.
 - Clocks and Console Window “Look” Slightly Different.
 - Login and Shutdown/Bootup Slightly Different.

UNIT 2: LINUX SERVER OPERATIONS

- **Logging Onto the Server.**
 - From the “Login for NTFS Server” Login Screen, Type Your Username in the “Login” Field.
 - Enter Your Password in the “Password” Field.
 - Select <Return>, or “Go!”.

UNIT 2: LINUX SERVER OPERATIONS

- **Logging Onto the Server.**
 - Blank Screen Saver Activated if the Login Screen is Displayed for More Than 5 Minutes.
 - Press <Return>, or Move the Mouse to Display the Login Screen.

UNIT 2: LINUX SERVER OPERATIONS

- **Logging Onto the Server.**
 - Server Will Display The Following:
 - Console Window Icon in Upper Right.
 - 2 Clocks (Local and UTC).
 - DOD Notice and Consent Banner Window (Automatically Removed After 60 Seconds).
 - SSL Activation Warning Window (Automatically Removed After 60 Seconds).
 - Only Displayed if SSL is Active.

UNIT 2: LINUX SERVER OPERATIONS

- **Shutting Down the Server.**
 - From the NTFS Main Workspace Menu, Select “**Shutdown Server->Shutdown Server**”.
 - Ignore All Displayed System Screens and Messages.
 - Server Will Display “Power down.”.
 - Turn-Off the Server.

UNIT 2: LINUX SERVER OPERATIONS

- **Rebooting the Server.**
 - With the Server Powered-Off, Turn-On the Server.
 - Server Will Perform Self-Test and Initiate Boot-Up Sequence.
 - Server Will Display “Login for NTFS Server” Login Screen When Completed.

UNIT 3: COMMON SERVER OPERATIONS

UNIT 3: COMMON SERVER OPERATIONS

- **Tcl/Tk System Status Report.**
 - Removed “Remote Copy Processes” Status from Display.
 - Function Has Been Incorporated Into the Database Process (PSR).
 - Removed “Longline Comm (ADCIO)” Status from Display.
 - SCOMP.
 - Added “Secure Shell (SSH)”, “IP Filters” and “SSL” Display.
 - Will Indicate Whether Function is “Disabled” or “Enabled”.

UNIT 3: COMMON SERVER OPERATIONS

- **Tcl/Tk System Status Report.**
 - Added “UPS Monitor”.
 - Will Display Under NTFS Server or C/DM Processes, Whichever is Configured With the UPS.
 - C/DM Processes May Now Indicate “Removed”.
 - SCOMP.

TRAINING COURSE

UNIT 3: COMMON SERVER OPERATIONS

New Status Indicators

UPS Monitor Status



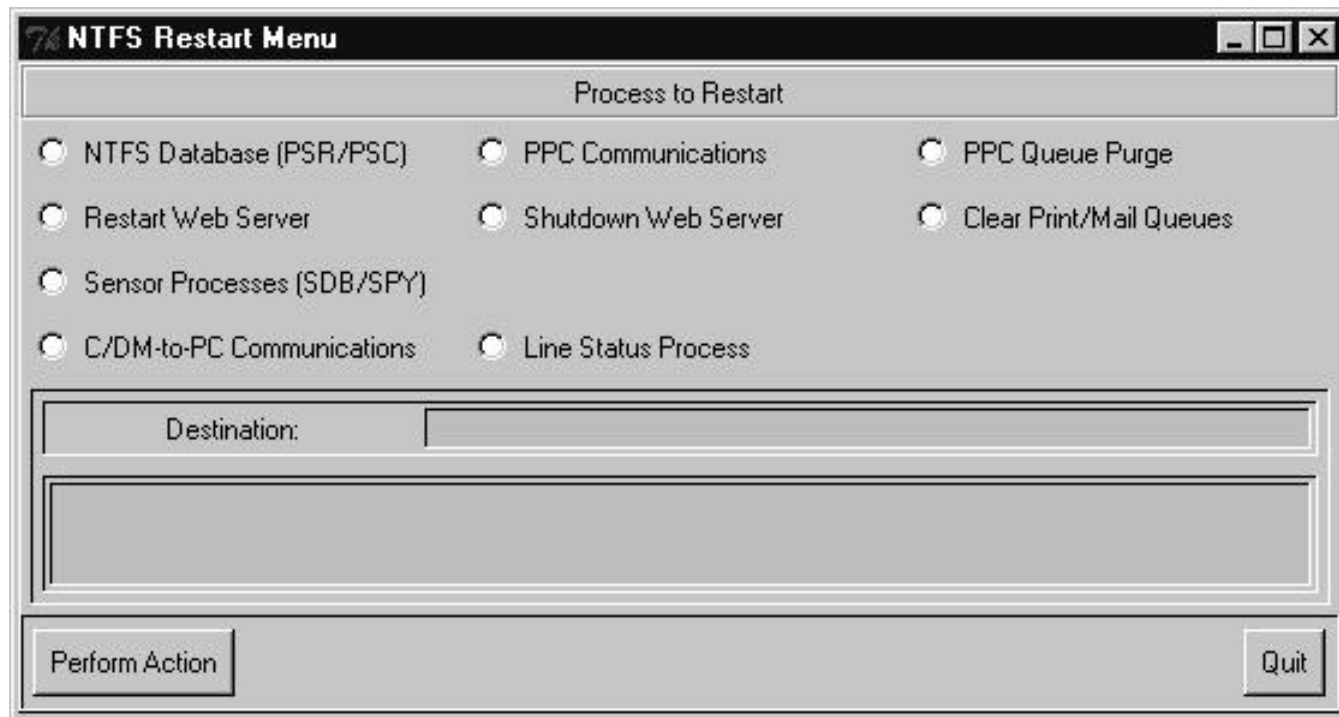
System Status Panel

UNIT 3: COMMON SERVER OPERATIONS

- **Tcl/Tk System Restart Menu.**
 - Removed “Longline Communications” Selection.
 - SCOMP.
- **NTFS Main Workspace Menu.**
 - Removed “TAF Verification” Selection.
 - Not Used.
 - Added “SDB Data Receipt Trace” Selection.
 - Product Traces->SDB Data Receipt Trace.
 - Real-Time Trace of Incoming AOS Data From SNR.
 - Will Automatically Close After 5 Minutes.

TRAINING COURSE

UNIT 3: COMMON SERVER OPERATIONS



Restart Panel

UNIT 3: COMMON SERVER OPERATIONS

- **Ability to Receive Urgent and Routine Alerts via FTP.**
 - Source Agency Follows General Dynamics Created, and Government Approved ICD Format.
 - Ingest Allowed via RSM FTP Ingest Authorization.
 - Select **FTP->Ingest Authorizations** to Configure Username and Password.
 - Alerts Will Be Displayed in Both the NTFS and LWNS Clients.
 - Configure NTFS Clients For External Alerts Using RSM **Alerts->System Error** Table.
 - LWNS Clients Will Always Display Alerts.

UNIT 4: SYSTEM MANAGER

UNIT 4: SYSTEM MANAGER

- **Client Login Panel.**
 - Added "Normal" and "Secure" Connection Modes.
 - “Normal” Connection (e.g. Port 80, 82).
 - “Secure” Uses SSL Connection (e.g. Port 443).
 - Port and Mode Must Match Server Configuration.
 - **RSM CSSO Access Control->Server Access Control.**

TRAINING COURSE

UNIT 4: SYSTEM MANAGER

The screenshot displays the NTFS LaunchPad application window. At the top, the title bar reads "NTFS LaunchPad". Below the title bar is a menu bar with "File". The main content area contains a large text block with a disclaimer: "THIS IS A DEPARTMENT OF DEFENSE COMPUTER SYSTEM. THIS COMPUTER SYSTEM, INCLUDING ALL RELATED EQUIPMENT, NETWORKS, AND NETWORK DEVICES (SPECIFICALLY INCLUDING INTERNET ACCESS) ARE PROVIDED ONLY FOR AUTHORIZED U.S. GOVERNMENT USE. DOD COMPUTER SYSTEMS MAY BE MONITORED FOR ALL LAWFUL PURPOSES, INCLUDING TO ENSURE THAT THEIR USE IS AUTHORIZED, FOR MANAGEMENT OF THE SYSTEM, TO FACILITATE PROTECTION AGAINST UNAUTHORIZED ACCESS, AND TO VERIFY SECURITY PROCEDURES, SURVIVABILITY, AND OPERATIONAL SECURITY. MONITORING INCLUDES ACTIVE ATTACKS BY AUTHORIZED DOD ENTITIES TO TEST OR VERIFY THE SECURITY OF THIS SYSTEM. DURING MONITORING, INFORMATION MAY BE EXAMINED, RECORDED, COPIED, AND USED FOR AUTHORIZED PURPOSES. ALL INFORMATION, INCLUDING PERSONAL INFORMATION, PLACED ON OR SENT OVER THIS SYSTEM MAY BE MONITORED. USE OF THIS DOD COMPUTER SYSTEM, AUTHORIZED OR UNAUTHORIZED, CONSTITUTES CONSENT TO MONITORING OF THIS SYSTEM. UNAUTHORIZED USE MAY SUBJECT YOU TO CRIMINAL PROSECUTION. EVIDENCE OF UNAUTHORIZED USE COLLECTED DURING MONITORING MAY BE USED FOR ADMINISTRATIVE, CRIMINAL, OR OTHER ADVERSE ACTION. USE OF THIS SYSTEM CONSTITUTES CONSENT TO MONITORING FOR THESE PURPOSES." Below the text is a prompt: "Select a Hub for Connection...Add Hubs as Required". Under this prompt is a section titled "Defined Hubs" containing a list box with the entry "wx70". Below the list box are three buttons: "Delete", "Connect", and "Edit". At the bottom of the window is a section titled "New/Edit Hub" containing input fields for "Hub Name:", "Hub IP:", and "Hub Port:". To the right of these fields is an "OPTIONAL" section with input fields for "Proxy IP:" and "Proxy Port:". Below these fields are two radio buttons: "Use Normal Server" (which is selected) and "Use Secure Server". At the bottom of the "New/Edit Hub" section are "OK" and "Cancel" buttons. The bottom right corner of the window displays "NTFS 3.1".

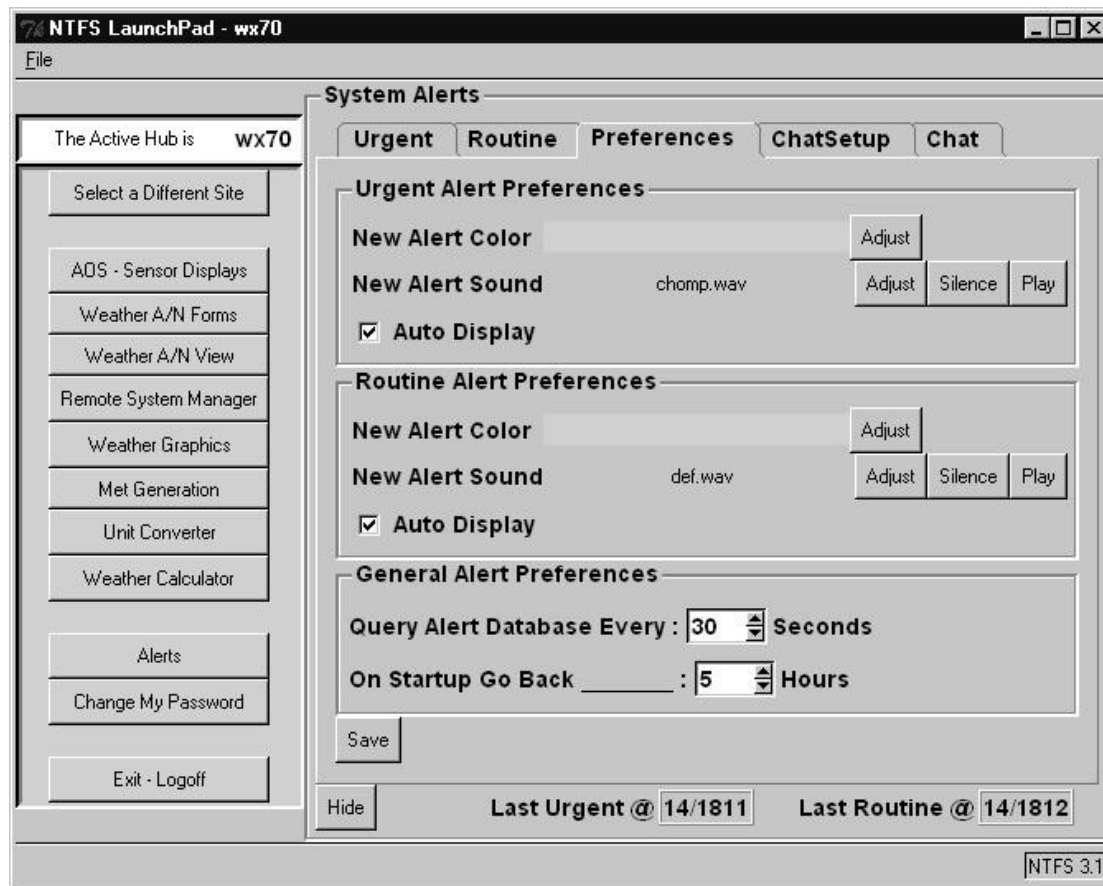
Connection Mode Selections

Login Panel

UNIT 4: SYSTEM MANAGER

- **Client Preference Panel.**
 - Select **Silence** to Turn-Off Urgent and/or Routine Alert Sounds.
 - Toggle “Auto Display” to Automatically De-iconify Client Window When Routine and/or Urgent Alert Arrives.
 - Select **Save** to Save Preferences to Server for Each Username.

UNIT 4: SYSTEM MANAGER

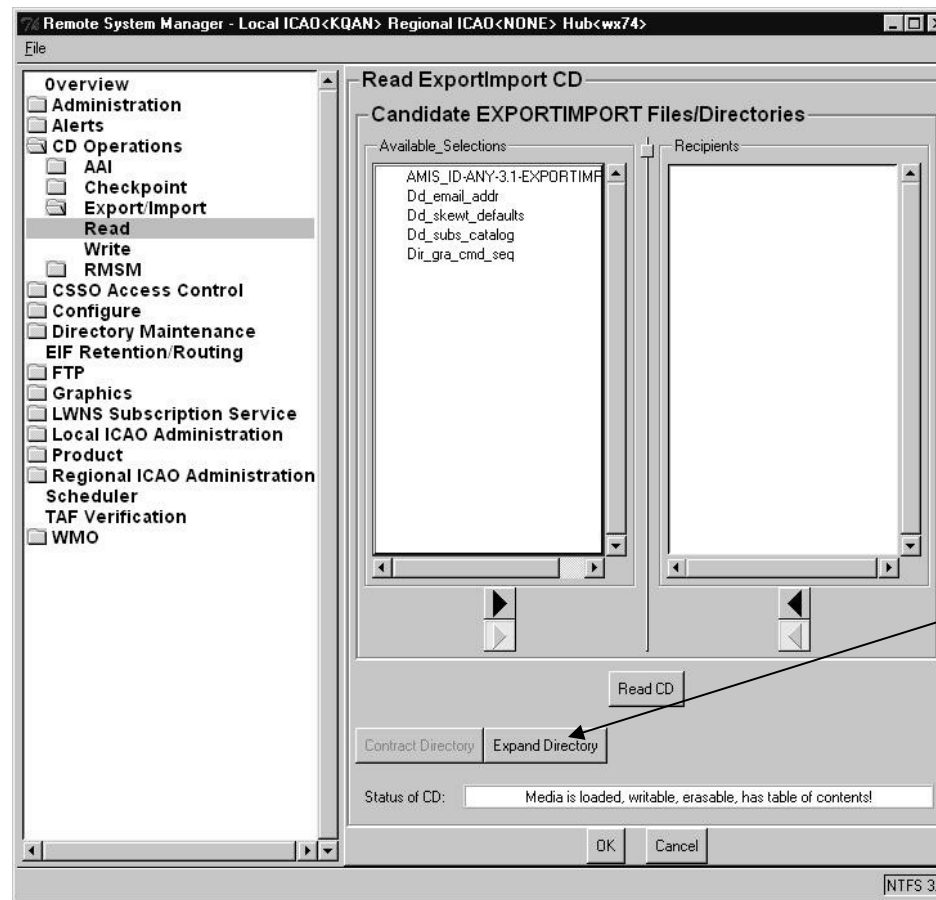


Alert Preferences Panel

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - CD Operations->Export/Import->Read.
 - Allow Selective File Copies Within Directories, Instead of Entire Directory.
 - With Directory Moved to “Recipients Column” (Only Those Filenames Beginning With “Dir” are Directories), Select “Expand Directory”.
 - List of Files Within Selected Directory is Displayed in “Available Selections” Column.
 - Move Required Files to “Recipients Column”, and Select “Read CD.”
 - To List CD Contents, Select “Contract Directory”.
 - CD Operations->Forms.
 - Removed.

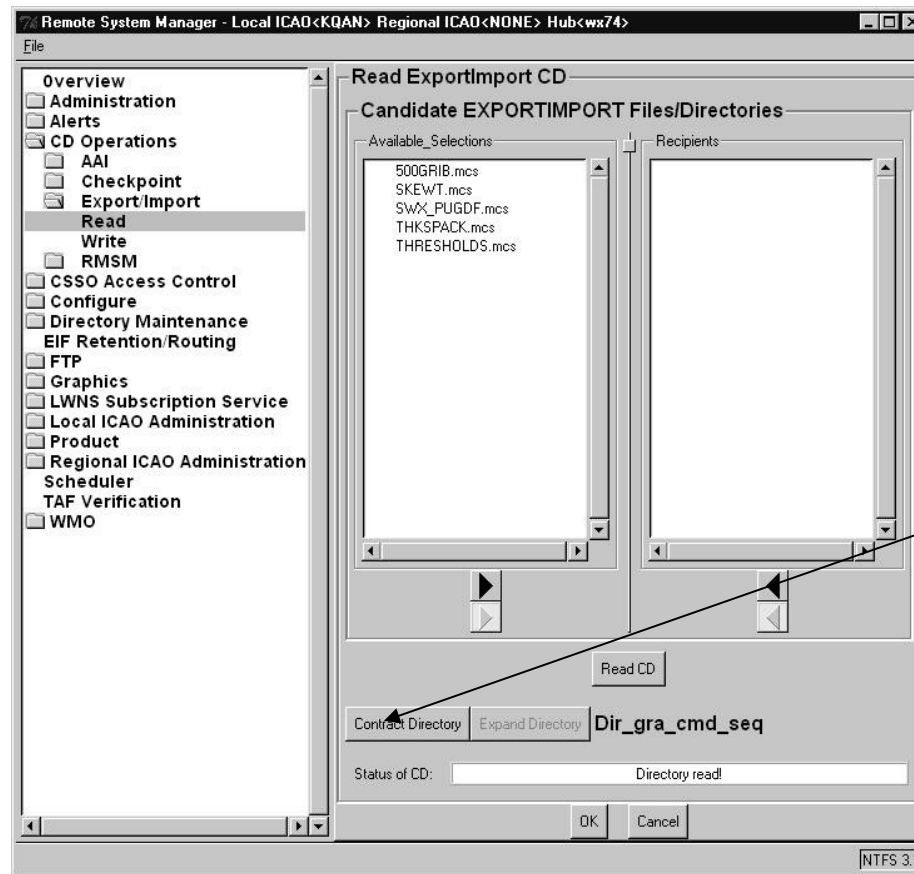
UNIT 4: SYSTEM MANAGER



Expand Directory

Export/Import CD Read Options

UNIT 4: SYSTEM MANAGER



Contract Directory

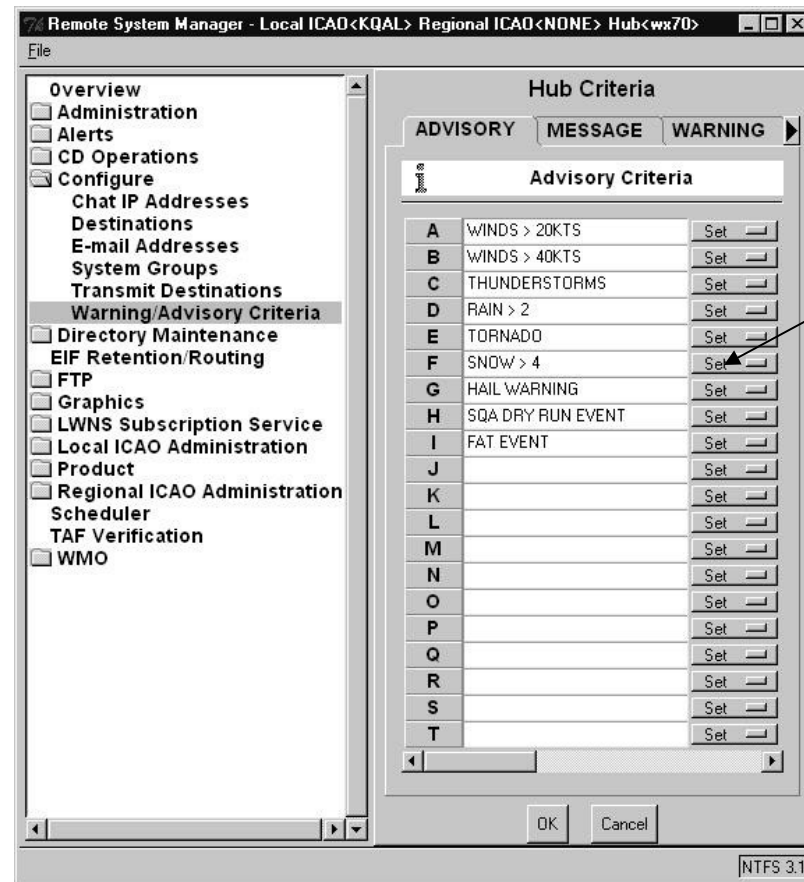
Export/Import Read Options

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - Configure->Warning/Advisory Criteria.
 - Removed "route" Configuration Selection Under "Set" Options.
 - No Longer Required With “Regional” Routing.
 - Configure->Longline Parameters.
 - Selection Removed Due to SCOMP.
 - Directory Maintenance.
 - Added "Background Composites" Selection.
 - Hi-Resolution DTED Map Backgrounds.
 - Deletes “Definition” Only, Individual Components Still Available on Server.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER

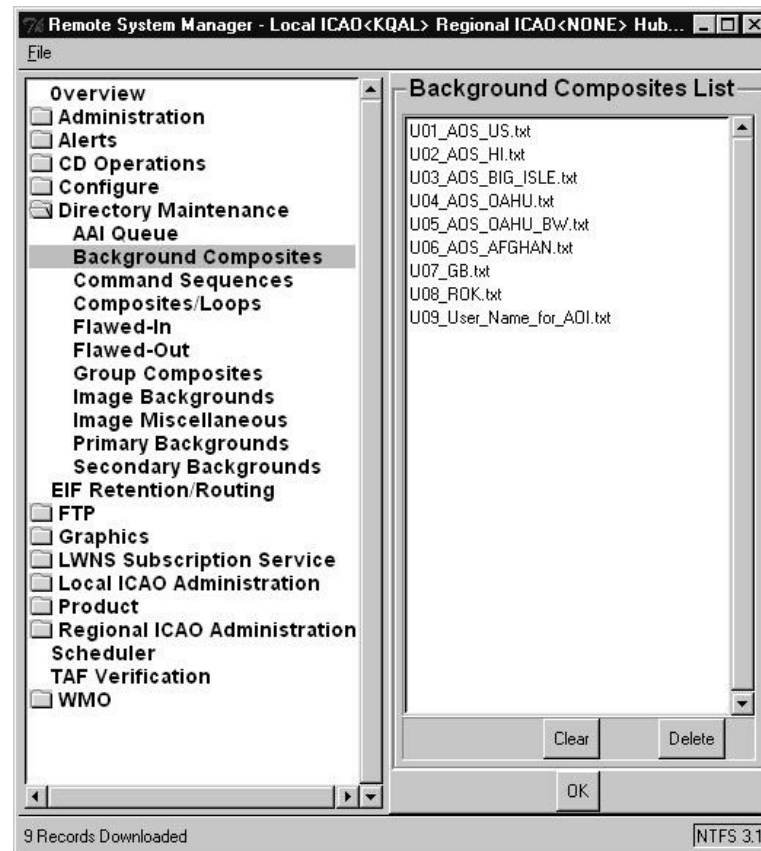


Set Options

Warning/Advisory Criteria Set Options

TRAINING COURSE

UNIT 4: SYSTEM MANAGER



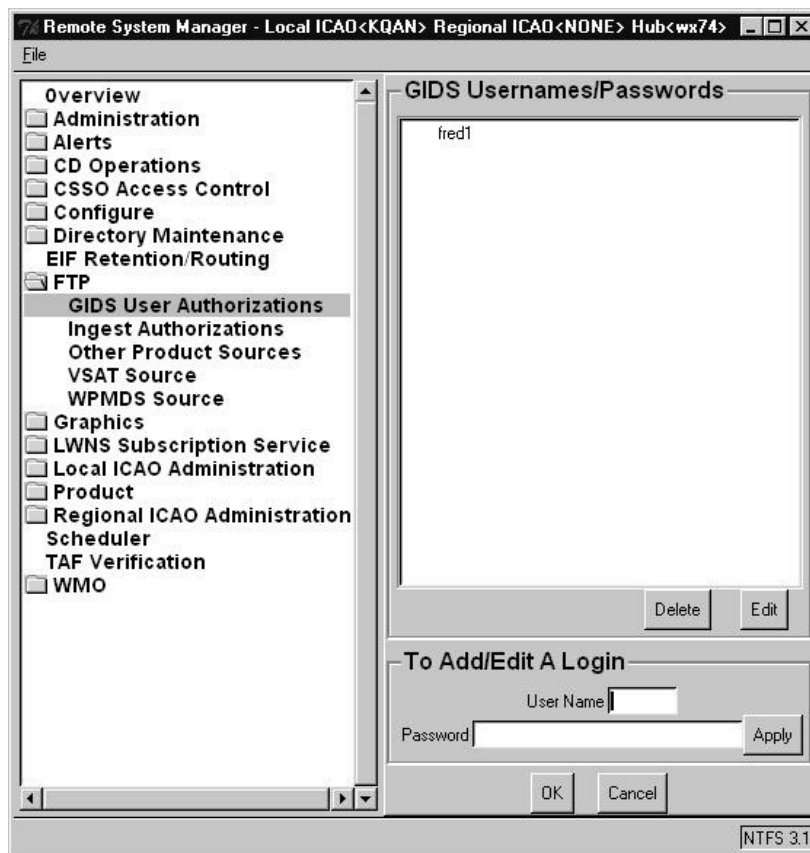
Background Composites Maintenance

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - Added Capability to FTP Fetch and Store GIDS Products From Another External System.
 - Configure via **FTP->Other Product Sources.**
 - Added Capability to FTP Fetch GIDS Products Stored on the NTFS Server.
 - Select **FTP->GIDS User Authorizations.**
 - **User Name.** Enter FTP Login Name.
 - **Password.** Enter FTP Login Password.
 - Select **Apply.**
 - Configure FTP Fetch Using GIDS Viewer GUI.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER



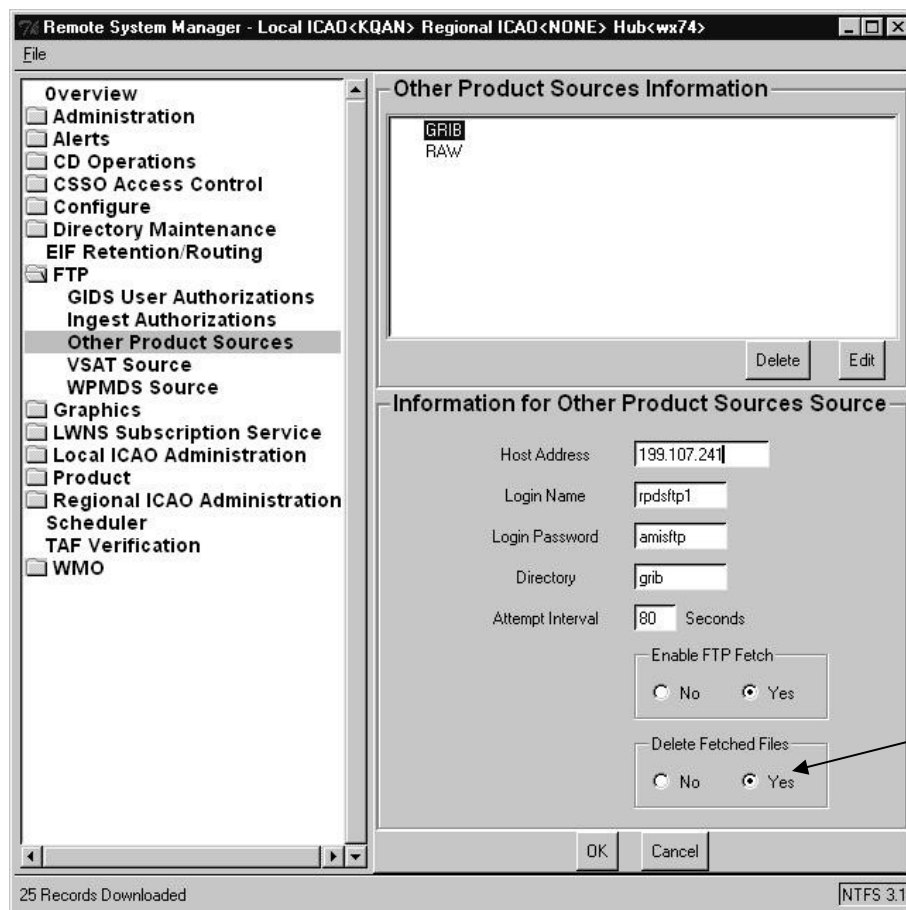
GIDS User Authorizations

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - FTP->Other Product Sources.
 - Added "Delete Fetched Files" Option.
 - Select “Yes” to Delete File(s) After Retrieval From Source (i.e., VCH).
 - Scheduler.
 - Under "Execute Macro" Action, Added List to Select Macro.
 - Double-Click Selection to Move Into “Name of Macro to Initiate” Field.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER

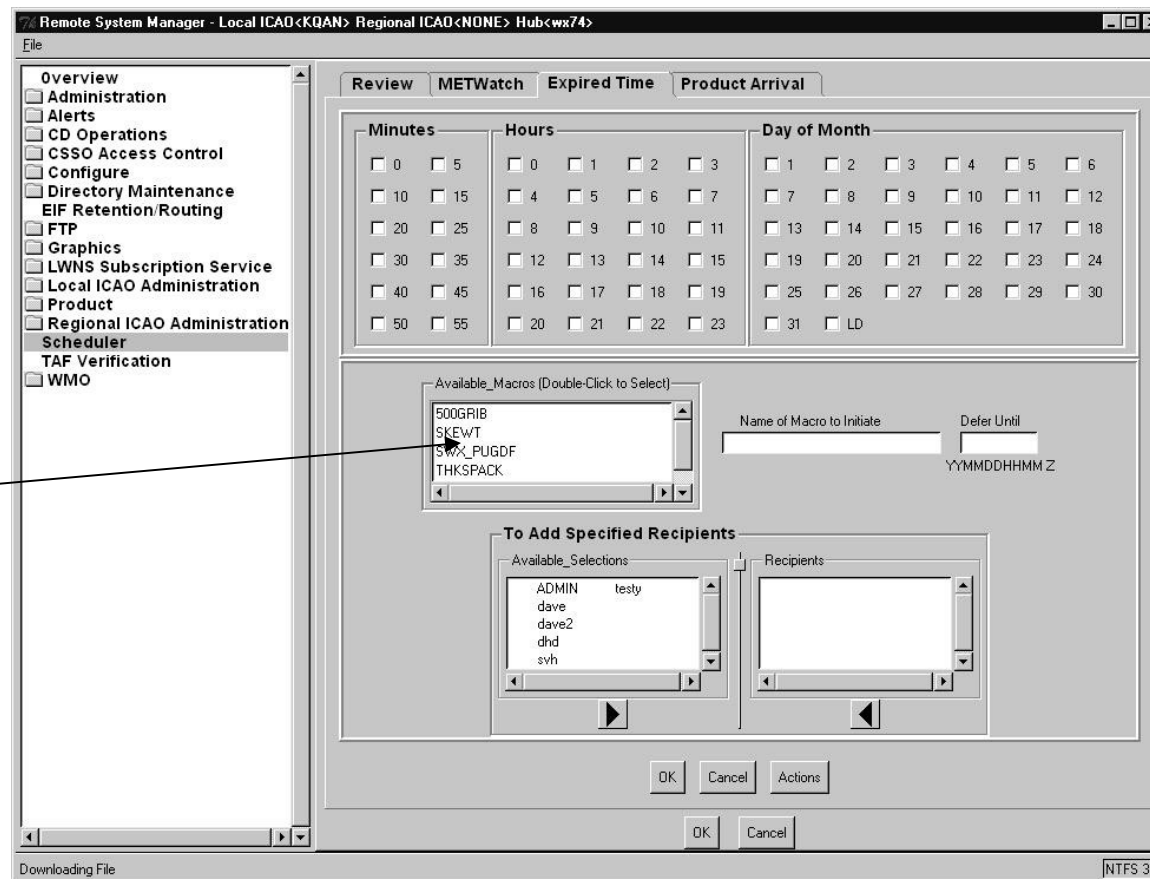


Delete Option

Delete Fetched Files Option

TRAINING COURSE

UNIT 4: SYSTEM MANAGER



Macro List

Execute Macro List

UNIT 4: SYSTEM MANAGER

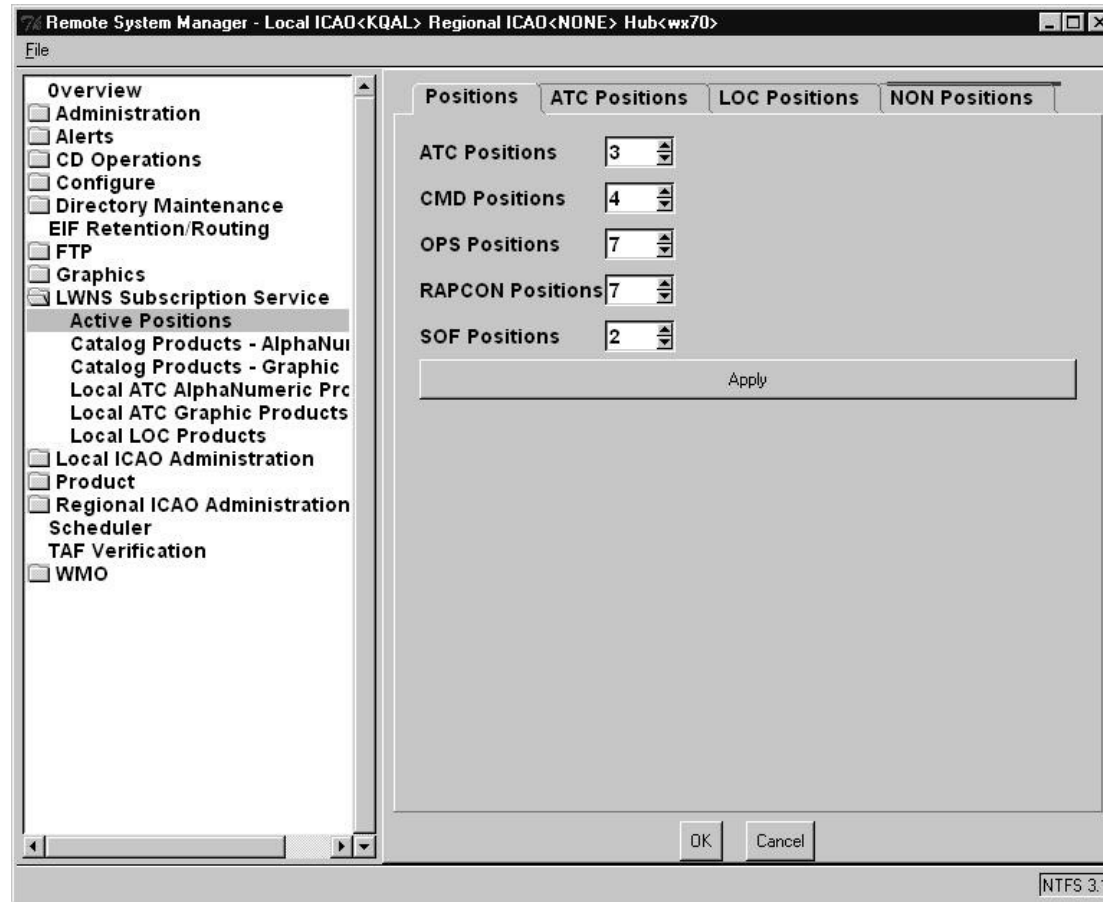
- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - Active Positions.
 - Catalog Products - AlphaNumeric.
 - Catalog Products - Graphic.
 - Local ATC Alphanumeric Products.
 - Local ATC Graphic Products.
 - Local LOC Products.

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **Active Positions -> Position** Tab - Defines the Number of Each Type LWNS Position.
 - LWNS/ATC - ATC and RAPCON Positions.
 - Creates 4-Character Position ID (LA##, LR##).
 - LWNS/LOC - CMD, OPS, and SOF Positions.
 - Creates 4-Character Position ID (LC##, LO##, LS##).
 - Select “Apply” When Number of Each Position is Completed.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER



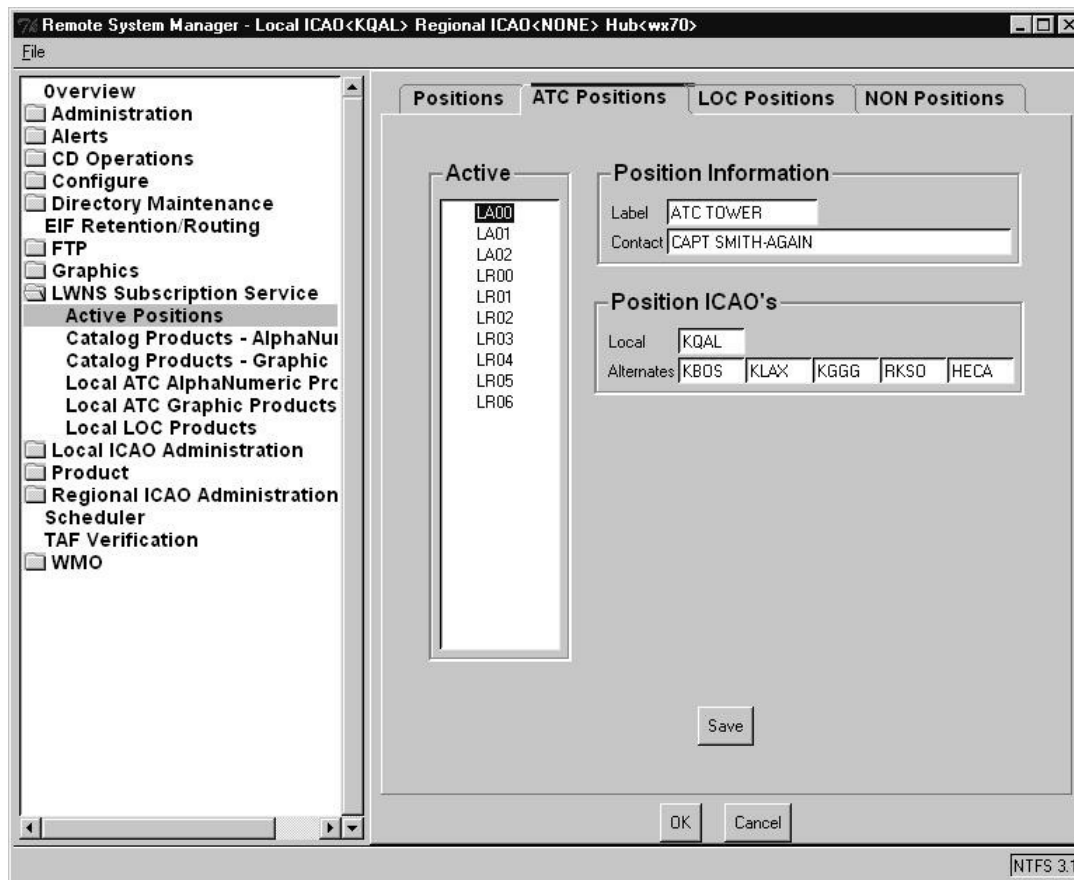
Active Positions

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **ATC Positions** Tab - Defines ATC Position Information and ICAO's.
 - Highlight Each LA## and LR## Position.
 - Enter Label and Contact Information For Receipt Acknowledgement Report.
 - Enter Up to 5 Alternate ICAO's For Display.
 - Select "Save" After Each Position to Save Individual Information at Server.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER



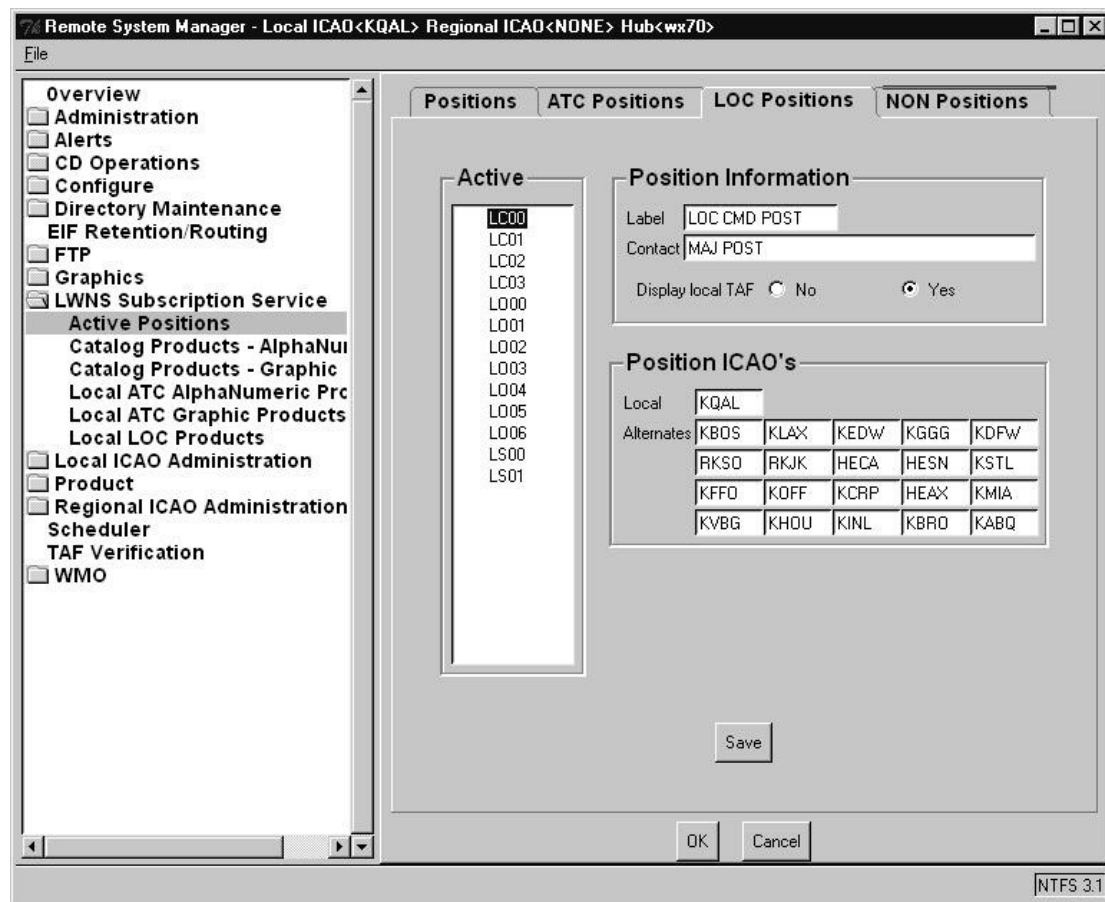
ATC Positions

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **LOC Positions** Tab - Defines LOC Position Information and ICAO's.
 - Highlight Each LC##, LO##, and LS## Position.
 - Enter Label and Contact Information For Receipt Acknowledgement Report.
 - Enter "Yes" or "No" Whether Local Default ICAO TAF is Displayed.
 - Enter Up to 20 Alternate ICAO's For Display.
 - Select "Save" After Each Position to Save Individual Information at Server.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER



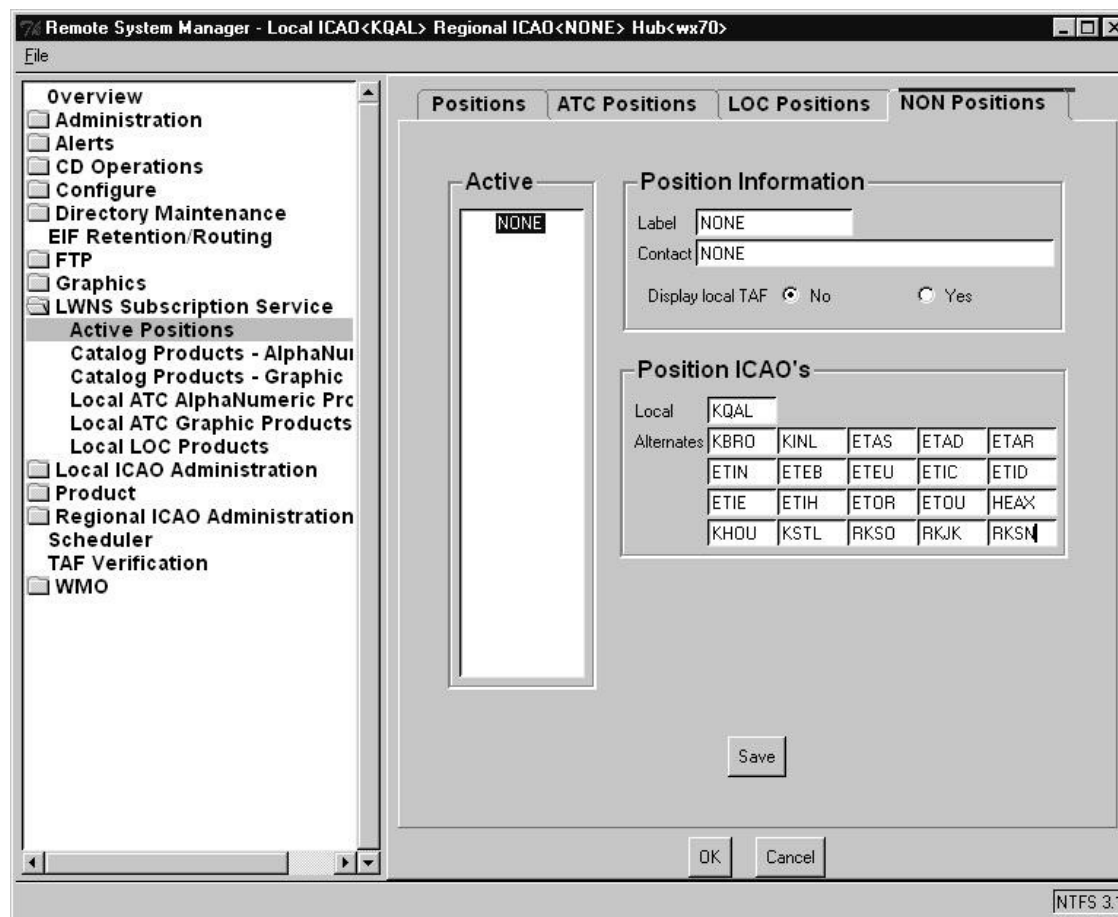
LOC Positions

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **NON Positions** Tab - Defines the “No” Position Information and ICAO’s.
 - Highlight the “NONE” Position.
 - Enter Label and Contact Information (Not Display on Receipt Acknowledgement Report).
 - Enter “Yes” or “No” Whether Local Default ICAO TAF is Displayed.
 - Enter Up to 20 Alternate ICAO’s For Display.
 - Select “Save” to Save Information at Server.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER



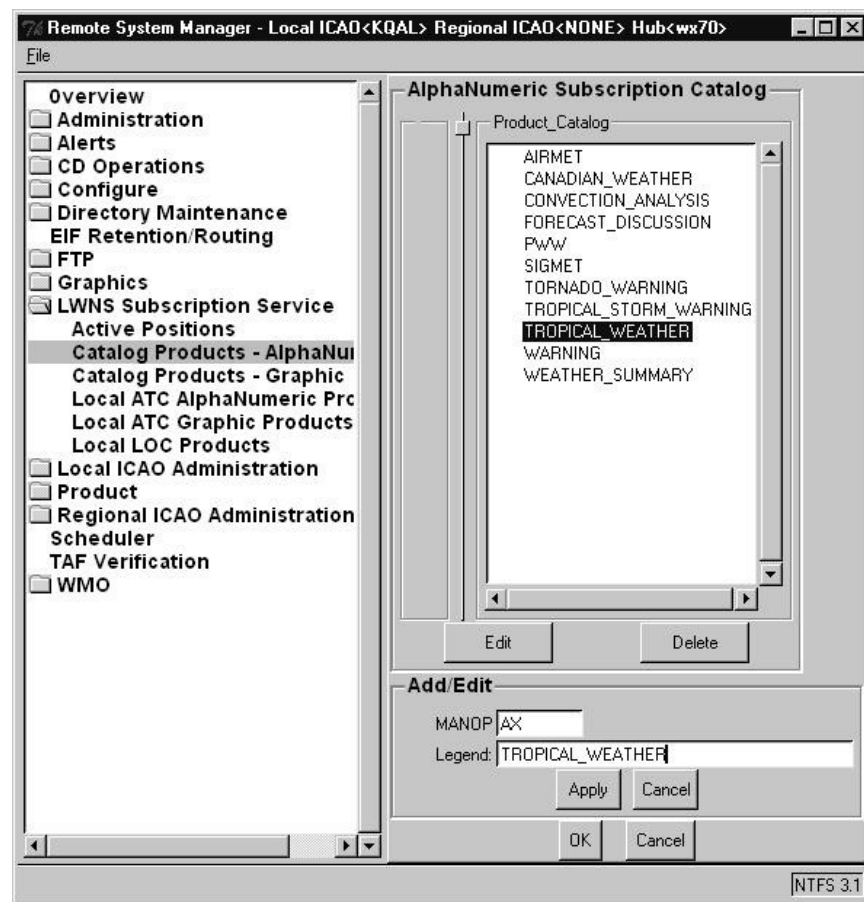
NON Positions

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **Catalog Products - AlphaNumeric** - Defines the A/N Products Available for Selection from the Product Catalog.
 - Pre-Loaded With Default A/N Catalog.
 - Enter 2-6 Character MANOP Header in MANOP Field.
 - Enter Plain Text Description of Product in Legend Field.
 - Will Be Used to Identify Product in Catalog and at LWNS/LOC Client.
 - Highlight Entry and Select “Edit” to Modify MANOP and/or Legend.
 - Highlight Entry and Select “Delete” to Remove Entry From A/N Catalog.
 - Select “Apply” to Save Information to Server.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER

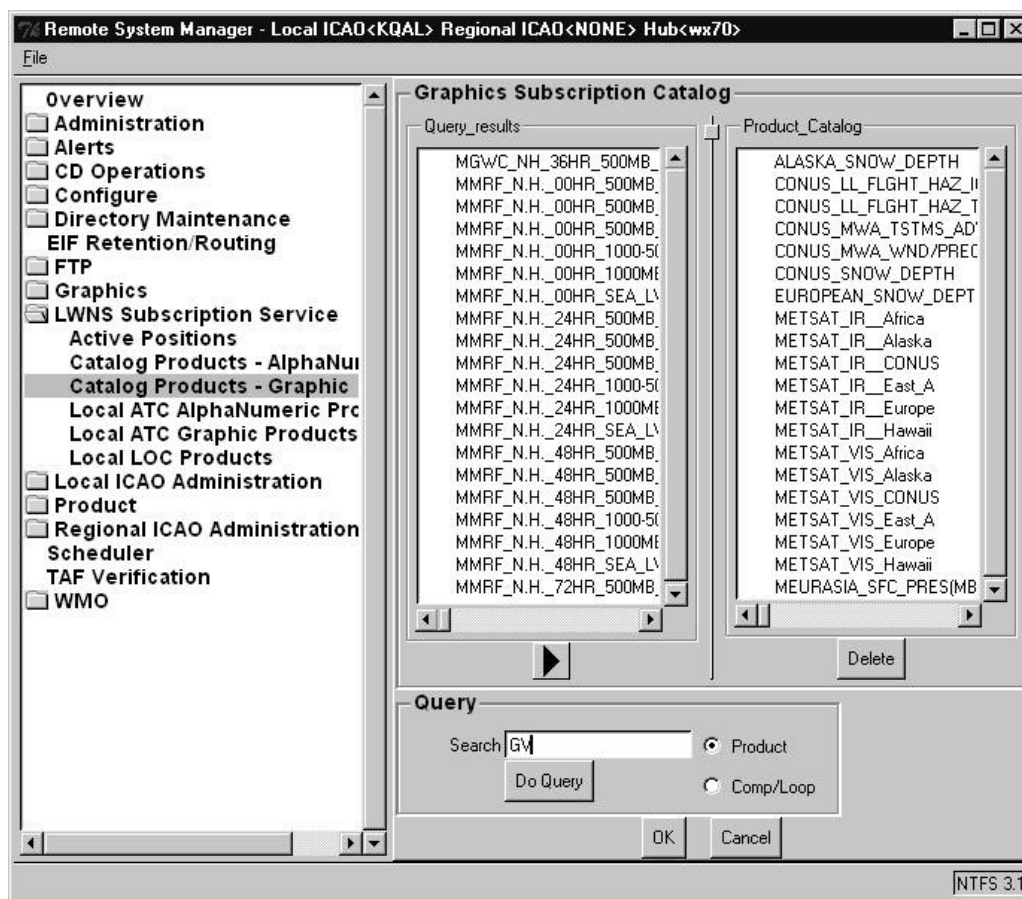


Catalog Products - AlphaNumeric

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **Catalog Products - Graphic** - Defines the Graphic Products Available for Selection from the Product Catalog.
 - Pre-Loaded With Default Graphic Catalog.
 - Select Either “Product” or “Comp/Loop” to Search.
 - Will Clear **Search** Field.
 - Enter 2-10 Character PID or Composite/Loop Name in Search Field.
 - Product Legend or Composite/Loop Name Will Be Used to Identify Product in Catalog and at LWNS/LOC Client.
 - Select “Do Query”.

UNIT 4: SYSTEM MANAGER



Catalog Products - Graphic

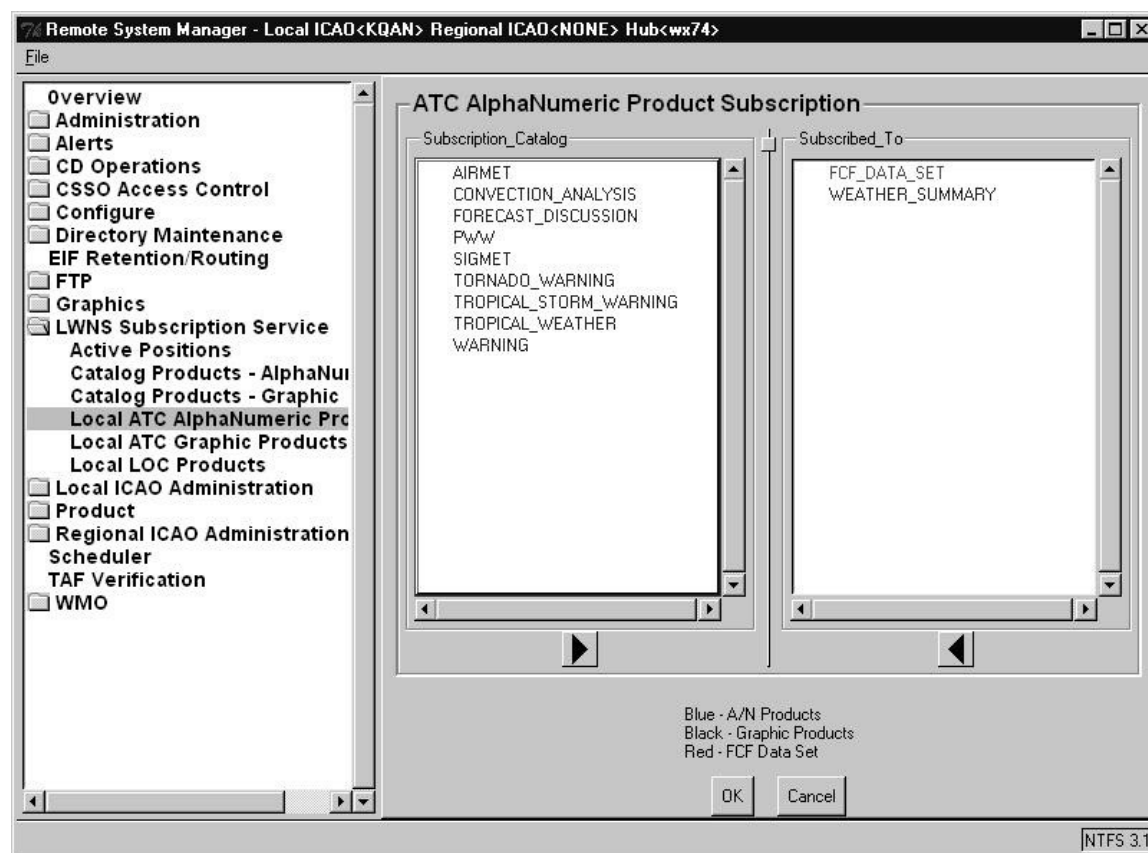
UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **Catalog Products - Graphic** - Defines the Graphic Products Available for Selection from the Product Catalog.
 - Query Results Are Displayed in “Query results” Column.
 - Double-Click, or Highlight and Select “Move Right” Arrow to Move Selection to Product Catalog Column.
 - Highlight and Select “Delete” to Remove Entry From Graphic Product Catalog.
 - Select “OK” to Save Information to Server.

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **Local ATC Alphanumeric Products** -Defines Those A/N Products From the A/N Catalog That the LWNS/ATC Clients Can Display.
 - To Select an A/N Product from the “Subscription Catalog” Column, Double-Click, or Highlight and Select “Move Right” Arrow to Move Selection to “Subscribed to” Column.
 - To Deselect an A/N Product from the “Subscribed to” Column, Double-Click, or Highlight and Select “Move Left” Arrow to Move Selection to “Subscription Catalog” Column.
 - Select “OK” to Save to Server.

UNIT 4: SYSTEM MANAGER

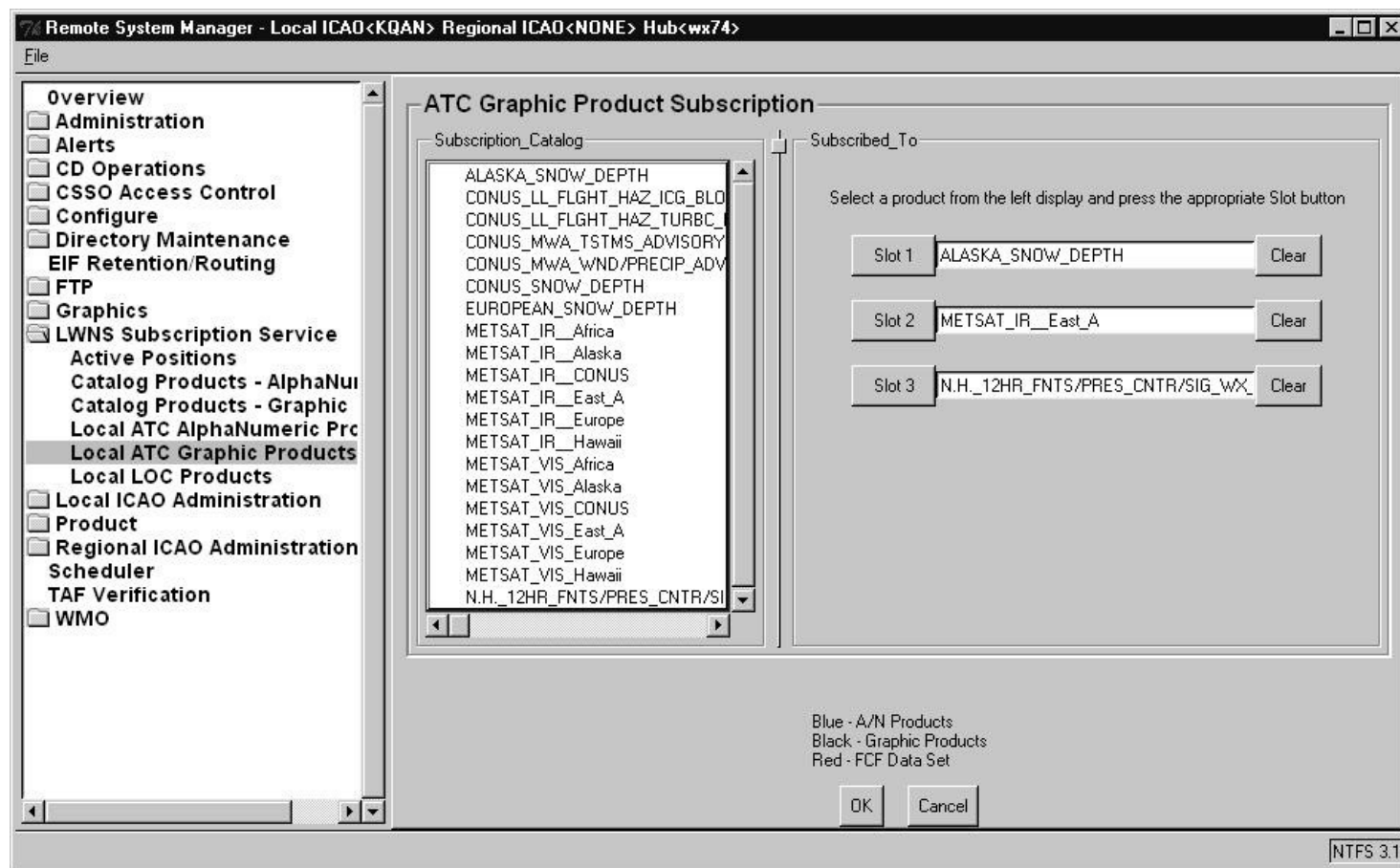


Local ATC Alphanumeric Products

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **Local ATC Graphic Products** - Defines Those Graphic Products From the Graphics Catalog That the LWNS/ATC Clients Can Display.
 - Up to 3 Graphics Products Can be Selected.
 - LWNS/ATC's Only Have Three Possible "Slots" to Display Graphics Products.
 - To Select a Graphic Product from the "Subscription Catalog" Column, Highlight and Select Which Slot to Display the Product.
 - To Deselect a Graphic Product from the "Subscribed To" Column, Select "Clear", or Select Another Graphic Product and Repeat the Selection Process.
 - Select "OK" to Save to Server.

UNIT 4: SYSTEM MANAGER



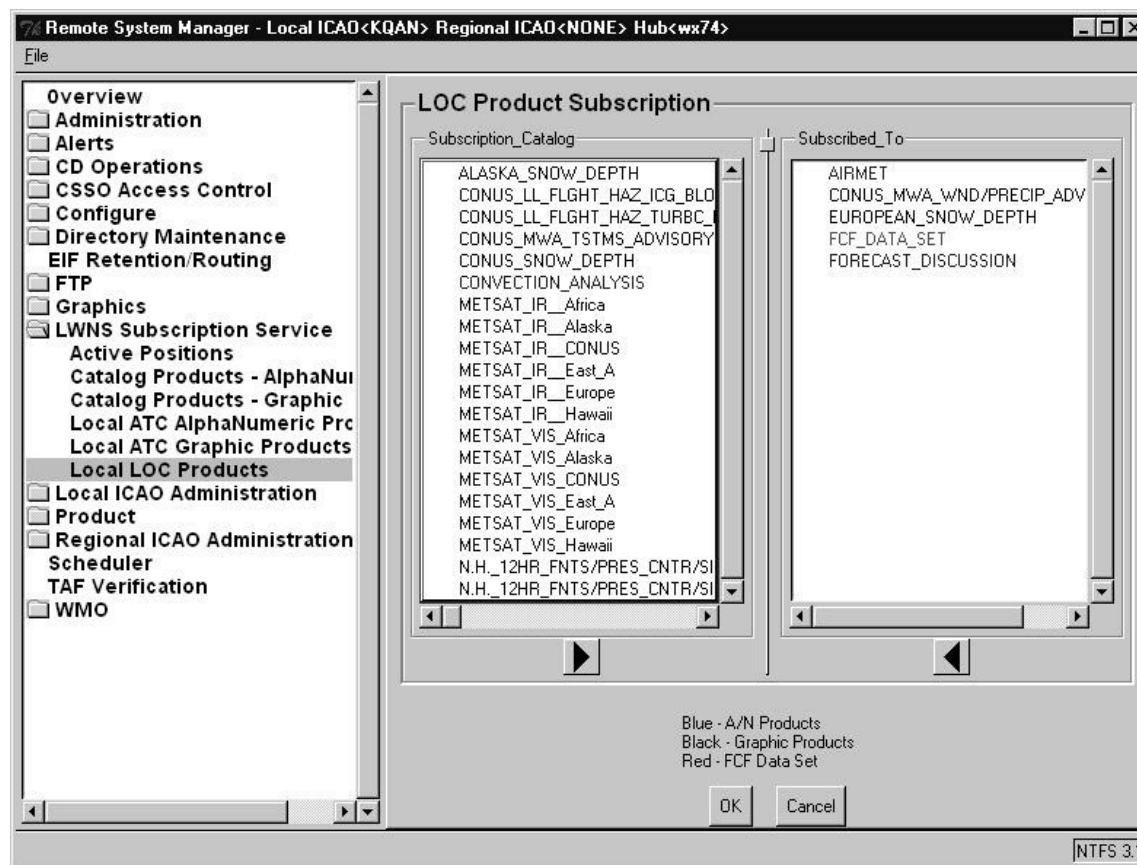
Local ATC Graphic Products

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - LWNS Subscription Service.
 - **Local LOC Products.** Defines Those A/N and Graphic Products From the A/N and Graphic Catalog That the LWNS/LOC Clients Can Choose and Display.
 - To Select Product from the “Subscription Catalog” Column, Double-Click, or Highlight and Select “Move Right” Arrow to Move Selection to “Subscribed to” Column.
 - To Deselect Product from the “Subscribed to” Column, Double-Click, or Highlight and Select “Move Left” Arrow to Move Selection to “Subscribed Catalog” Column.
 - Select “OK” to Save to Server.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER

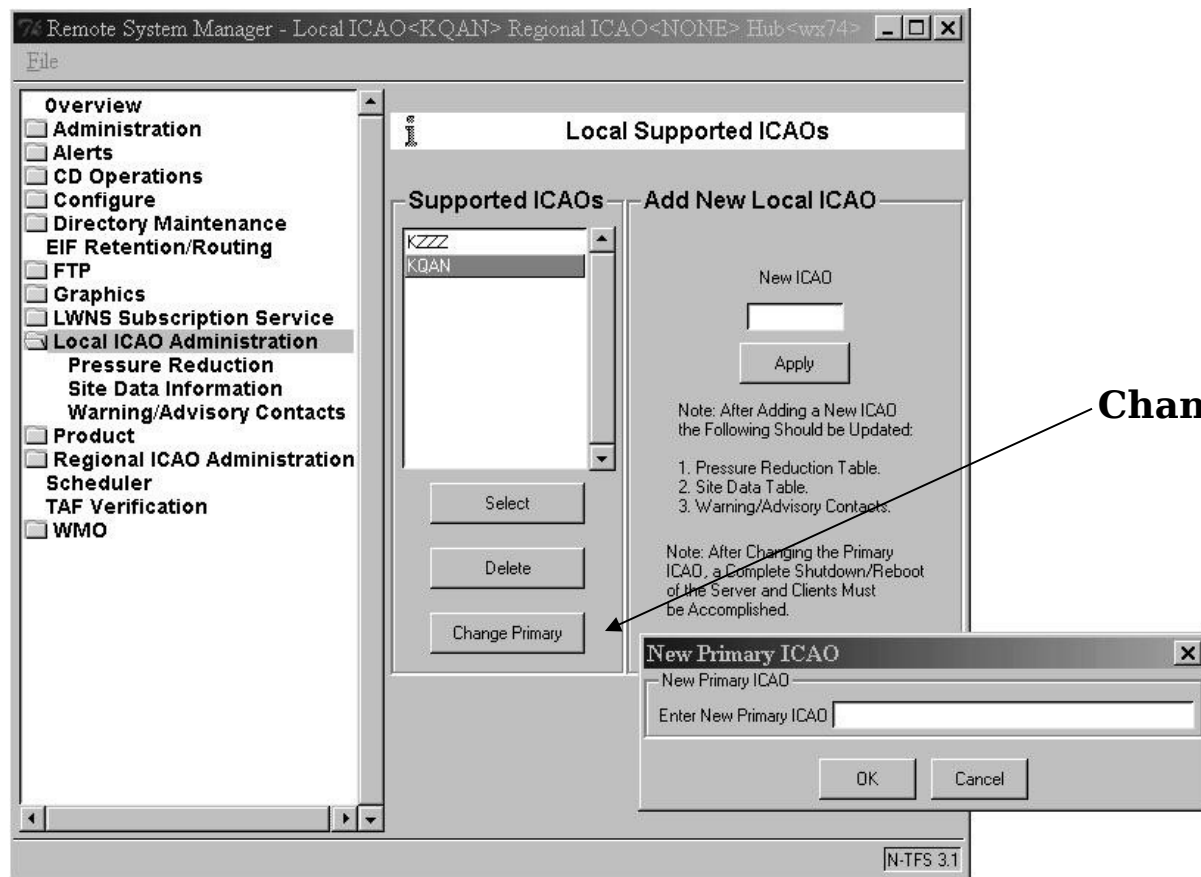


Local LOC Products

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - Local ICAO Administration.
 - Added Capability to Change the Default Primary Local ICAO.
 - Selection Available Only at the NTFS Server.
 - Select “Change Primary”.
 - New Primary ICAO Panel is Displayed.
 - Enter New ICAO in “Enter New Primary ICAO”.
 - Select “OK”.
 - Perform a Shutdown and Reboot of the NTFS Server, C/DM, and All Clients.
 - Use This Capability Only When Directed by AFWA.

UNIT 4: SYSTEM MANAGER



Change Primary ICAO

Local Supported ICAOs

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - Local ICAO Administration->Site Data Information.
 - Under "Misc." Tab, Added "ATC TYPE" Selection (for Default ICAO Only).
 - “FAA” or “USAF” Options Available.
 - “FAA” - LWNS/ATC’s Will Display and Merge Received External Observations Converted to Local Format (i.e., Stand-Alone LWNS Servers).
 - “USAF” - LWNS/ATC’s Will Display and Merge Local Observations as Done Today.

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - Local ICAO Administration->Site Data Information.
 - Under "Misc." Tab, Added AFCCC Email Addresses Entries for Form 3813 Information Transmission.
 - Enter Primary and Secondary AFCCC Email Address in "1st AFCCC E-mail Address" and "2nd AFCCC E-mail Address" Fields.
 - Enter From Email Address in "AFCCC E-mail Return" Field.

UNIT 4: SYSTEM MANAGER

Remote System Manager - Local ICAO<KQAN> Regional ICAO<NONE> Hub<wx74>

File

Overview
Administration
Alerts
CD Operations
Configure
Directory Maintenance
EIF Retention/Routing
FTP
Graphics
LWNS Subscription Service
Local ICAO Administration
Pressure Reduction
Site Data Information
Warning/Advisory Contacts
Product
Regional ICAO Administration
Scheduler
TAF Verification
WMO

Identification Location Defaults Units Misc.▶

Misc. Site Specific Information

ARQ Address KAWN

AWN Address AWN

ATC TYPE
☒ USAF ☐ FAA

1st AFCCC E-mail Address svh@wx.gd-ais.com

2nd AFCCC E-mail Address

AFCCC E-mail Return

OK Cancel

N-TFS 3.1

ATC Type

AFCCC Addresses

ATC Type Selection

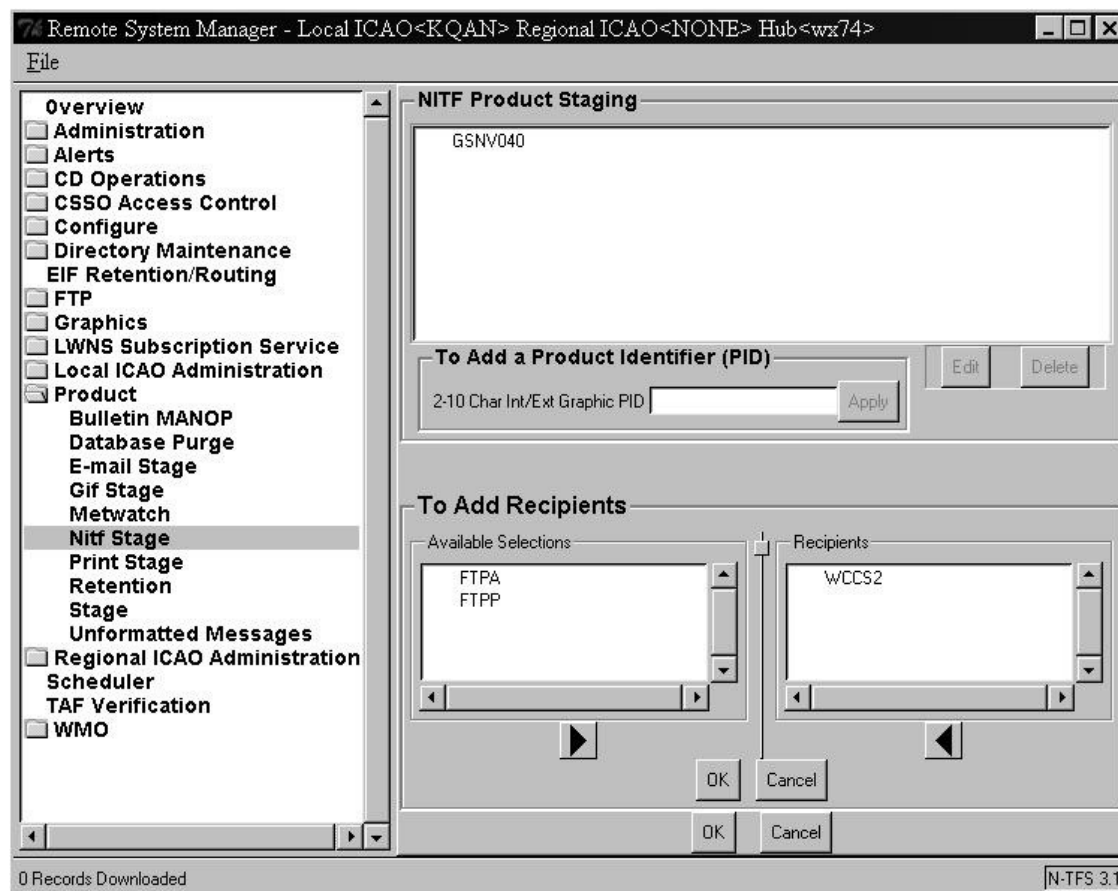
UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - Product->NITF Stage.
 - Allows Products to be Automatically Transmitted in National Imagery Transmission Format (NITF).
 - Enter 2-10 Character Internal or External Graphic PID in “2-10 Char Int/Ext Graphic PID” Field.
 - Only Image and Vector Graphic Product PIDs are Allowed (i.e., GV, GS, DS, etc).
 - Select “Apply”.
 - The “To Add Recipients” Panel Appears.
 - Only Destinations Configured for NITF Format are Listed.

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - Product->Nitf Stage.
 - Allows Products to be Automatically Transmitted in National Imagery Transmission Format (NITF).
 - To Select Destination from the “Available Selections” Column, Double-Click, or Highlight and Select “Move Right” Arrow to Move Selection to “Recipients” Column.
 - To Deselect Destination from the “Recipients” Column, Double-Click, or Highlight and Select “Move Left” Arrow to Move Selection to “Available Selections” Column.
 - Select “OK” to Save to Server.
 - To Edit PID, Highlight PID and Select “Edit”.
 - To Delete PID, Highlight PID and Select “Delete”.

UNIT 4: SYSTEM MANAGER



NITF Product Stage

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - Regional ICAO Administration->Site Data Information.
 - Under “Network” Tab, Added LWDS Server IP Addresses and Port Number Entries for Retrieving CWT LWDS.
 - Enter LWDS Server Address (CWT) and Port (CWT) in “LWDS Server Address” and “LWDS Server Port” Fields.
 - Enter LWDS Server Proxy Address (CWT) and Port (CWT) in “LWDS Server Proxy Address” and “LWDS Server Proxy Port” Fields (Optional).
 - Select “Normal” (Non-SSL) or “Secure” (SSL) for LWDS Server Security Setting (CWT).

UNIT 4: SYSTEM MANAGER

The screenshot shows a software window titled "Remote System Manager - Local ICAO<KQAM> Regional ICAO<KQAL> Hub<wx71>". The window has a menu bar with "File" and a left-hand navigation pane. The navigation pane lists various system components, with "Regional ICAO Administration" and "Site Data Information" highlighted. The main area of the window is divided into tabs: "Identification", "Location", "Units", and "Network". The "Identification" tab is active, displaying "Destination Network Information". This section contains several input fields for server configuration: "Primary Server Address or 'VSAT'" (199.107.241.70), "Alternate Server Address or 'VSAT'" (VSAT), "LWDS Server Address" (199.107.241.70), "LWDS Server Port" (82), "LWDS Server Proxy Address" (empty), and "LWDS Server Proxy Port" (empty). There is also a "LWDS Server Security" section with two radio buttons: "Normal" (selected) and "Secure". At the bottom right of the main area are "OK" and "Cancel" buttons. The bottom right corner of the window displays "NTFS 3.1".

File

Overview
Administration
Alerts
CD Operations
CSSO Access Control
Configure
Directory Maintenance
EIF Retention/Routing
FTP
Graphics
LWNS Subscription Service
Local ICAO Administration
Product
Regional ICAO Administration
Site Data Information
Warning/Advisory Contacts
Scheduler
TAF Verification
WMO

Identification Location Units Network

Destination Network Information

Primary Server Address or "VSAT" 199.107.241.70

Alternate Server Address or "VSAT" VSAT

LWDS Server Address 199.107.241.70

LWDS Server Port 82

LWDS Server Proxy Address

LWDS Server Proxy Port

LWDS Server Security
☒ Normal ☐ Secure

OK Cancel

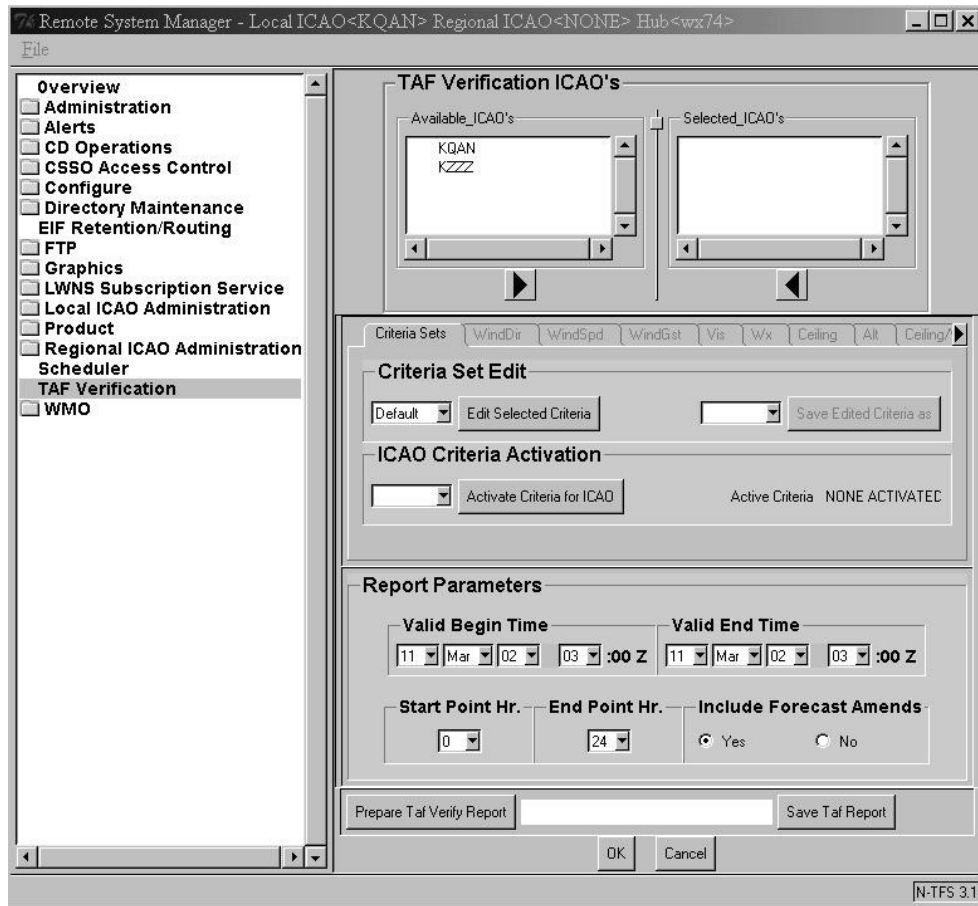
NTFS 3.1

LWDS Server Configuration

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - TAF Verification.
 - To Select ICAO from the “Available_ICAO’s” Column, Double-Click, or Highlight and Select “Move Right” Arrow to Move Selection to “Selected_ICAO’s” Column.
 - To Deselect ICAO from the “Selected_ICAO’s” Column, Double-Click, or Highlight and Select “Move Left” Arrow to Move Selection to “Available_ICAO’s” Column.
 - Highlight Desired ICAO in the “Selected_ICAO’s” Column, Editing Buttons Become Active.

UNIT 4: SYSTEM MANAGER



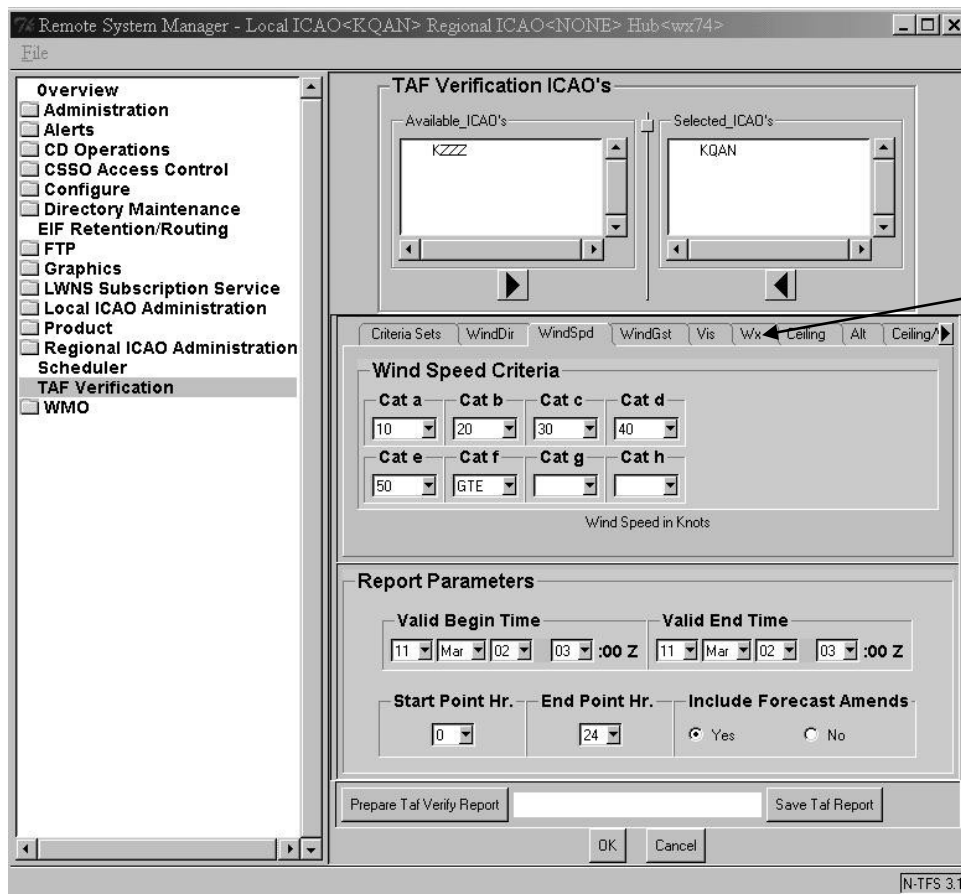
TAF Verification

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - TAF Verification.
 - Criteria Set Edit. Allows Prefined Criteria Sets to be Edited and Saved as up to 5 Unique Criteria Sets.
 - From the **Edit Selected Criteria** Pull-Down List, Select a Predefined Criteria Set, and Select the **Edit Selected Criteria** Button, the Criteria Tabs Become Active.
 - In the Criteria Tabs, Configure the Desired Parameters with the Required Criteria.
 - For the “Ext/Int” Tab, Select to Use External (AWN-Comebacks) or Internal (Local) Observations, Select “Set Type of TAF/OBS to use”.
 - From the **Save Edited Criteria as** Pull-Down, Select a User-Defined Criteria Name to Save the Criteria.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER



TAF Verification

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - TAF Verification.
 - ICAO Criteria Activation. Activates Which Criteria Set is Used During the Verification.
 - From the **Activate Criteria for ICAO** Pull-Down, Select the Criteria to be Used for the Verification.
 - Select **Activate Criteria for ICAO**, the Active Criteria Will be Displayed.

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - TAF Verification.
 - Report Parameters. Defines the Forecast Time Period of the Verification.
 - Select the “Valid Begin Time” and “Valid End Time” for the Verification Report.
 - Select the “Start Point Hr.” and “End Point Hr.” for the Forecast Hour Range of Each TAF Included in the Verification.
 - To Perform a Single Point Forecast Verification Report, Configure Both Hours With the Same Value.
 - Select **Yes** or **No** if Forecast Amendments are Included in the Verification.

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - TAF Verification.
 - Select **Prepare Taf Verify Report** to Perform the Verification Using the ICAO(s) and Parameters Configured.
 - May Take Several Minutes.
 - An Urgent Alert Will be Displayed at the NTFS Client Launch Pad When the Report is Completed.
 - To Save the Report Data, Select **Save Taf Report**, the “Save As” Window is Display.
 - Enter Unique Name, and Select **Save**.
 - Available Only at the NTFS Client.

UNIT 4: SYSTEM MANAGER

- **Remote System Manager (RSM).**
 - TAF Verification.
 - To View the Report, Display in a Spreadsheet Application (i.e., Excel), Using Comma Delimited Fields.
 - Refer to NTFS 3.1.1 Users Manual for Explanation of Fields, Skill Scores, and Rules.

TRAINING COURSE

UNIT 4: SYSTEM MANAGER

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	KLAX using Default Forecast: 26-Nov-01-01 Verification Hours: 00-23															
2	Parameter	Cat	Value	F-YY	F-YN	F-NY	F-NN	P-YY	P-YN	P-NY	P-NN	TOT-F	F-HITS	P-HITS	FA	PA
3	alt	a	0.05	2	0	22	0	0	2	0	22	24	2	22	0.08	0.92
4	ceil	a	200	1	5	1	17	6	0	18	0	24	18	6	0.75	0.25
5	ceil	b	1000	1	4	8	11	0	5	0	19	24	12	19	0.5	0.79
6	ceil	c	3000	1	3	1	19	0	4	0	20	24	20	20	0.83	0.83
7	ceil	d	GTE	3	6	8	7	0	9	0	15	24	10	15	0.42	0.62
8	combo	a	0200/0800	0	18	0	6	0	18	0	6	24	6	6	0.25	0.25

TAF Verification Report

TRAINING COURSE

UNIT 5: CSSO

UNIT 5: CSSO

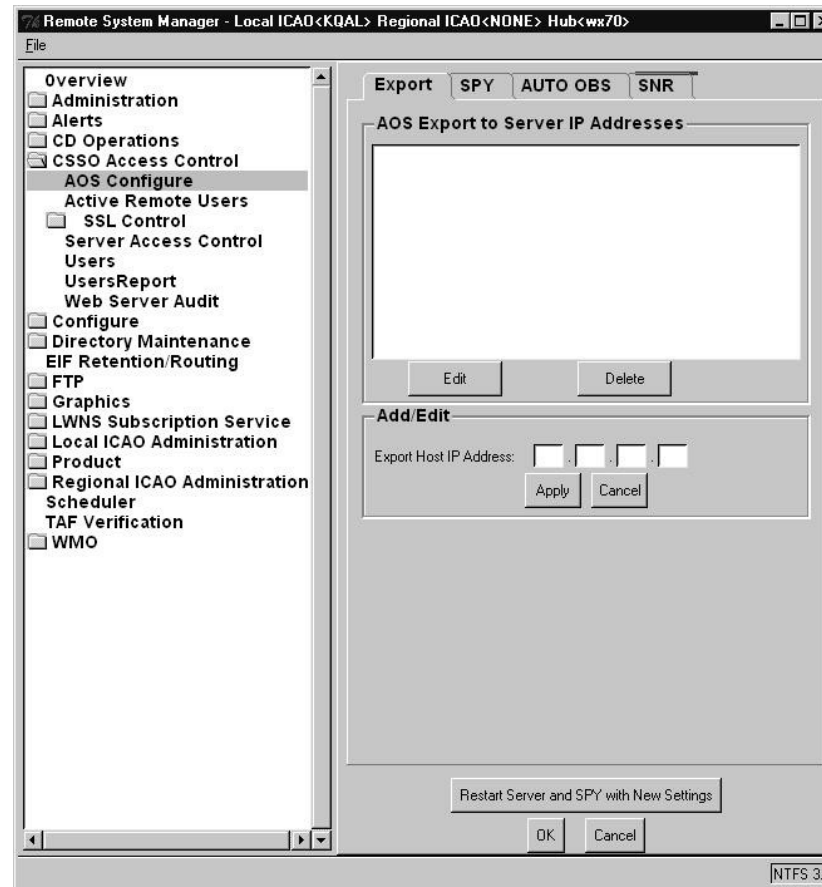
- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - Added "AUTO OBS" and "SNR" Tabs.
 - Changed "Server" Tab to "Export" Tab.
 - Removed "TACMET"/"STANDARD" Toggle.
 - Moved SNR Source Entry Information to "SNR" Tab.
 - If Any Information Is Changed in Any AOS Configure Tab, Select “Restart Server and SPY with New Settings”.

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **Export** Tab Defines Those NTFS Servers (OWS) Allowed to Retrieve Your (CWT) AOS Data.
 - Enter the IP Address(es) in “Export Host IP Address” Fields.
 - Highlight Entry and Select “Edit” to Modify IP Address(es).
 - Highlight Entry and Select “Delete” to Remove IP Address(es).
 - Select “Apply” to Add Information to Address List.
 - Select “OK” to Save to Server.

TRAINING COURSE

UNIT 5: CSSO



AOS Configure->Export

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - For OWS's, the **SPY** Tab Defines Those NTFS Servers (CWT's) Which Your Server (OWS) Will Retrieve AOS Data (Using the "Spy" Program).
 - For CWT's, the **SPY** Tab Defines the ICAO of the AOS Data Received From Your Sensor (SNR), or Data Collection Unit (DCU) Computer.
 - For Both OWS's and CWT's, the **SPY** Tab Also Defines the Location of the Sensor Database (SDB).

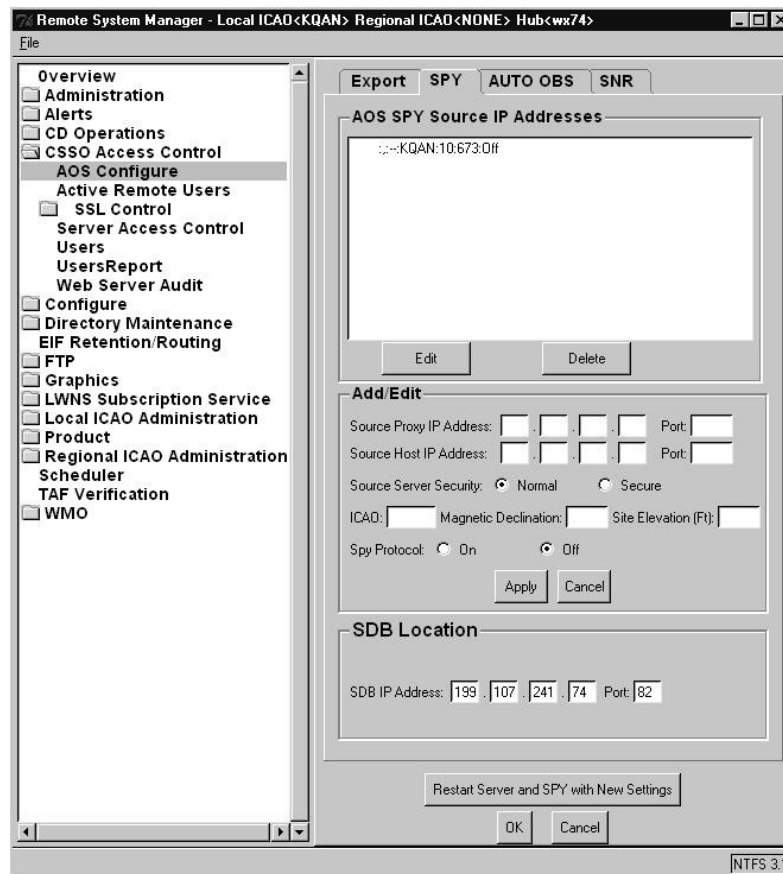
TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **SPY** Tab (OWS) Defines Those NTFS Servers (CWT's) Which Your Server (OWS) Will Retrieve AOS Data (SPY).
 - Enter the CWT Proxy IP Address in “Source Proxy IP Address” Fields (Optional).
 - Enter the CWT Proxy Port Number in “Port” Field (Optional).
 - Enter the CWT IP Address in “Source Host IP Address” Fields.
 - Enter the CWT Port Number in “Port” Field.
 - Select **Normal** if CWT is Not Using SSL, or **Secure** if CWT Server is Using SSL.
 - Enter the ICAO, Magnetic Declination, and Site Elevation of Each CWT ICAO You Will Receive AOS Data.

TRAINING COURSE

UNIT 5: CSSO



} SPY IP Address(es)
} ICAO Entry

} SDB IP Address

AOS Configure->SPY

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **SPY** Tab (OWS) Defines Those NTFS Servers (CWT's) Which Your Server (OWS) Will Retrieve AOS Data (SPY).
 - Turn Spy Protocol "On" (OWS).
 - Select "Apply" to Add Information to Address List.
 - Define the IP Address of the Sensor Database (SDB) Where the AOS Data is Stored (Usually Your Own NTFS Server).
 - Enter the (OWS) IP Address in "SDB IP Address" Fields.
 - Enter the (OWS) Port Number in "Port" Field.
 - Select "OK" to Save to Server.

TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **SPY** Tab (CWT) Defines the ICAO of the AOS Data Received From Your Sensor (SNR), or Data Collection Unit (DCU) Computer.
 - Enter the ICAO, Magnetic Declination, and Site Elevation of Your ICAO.
 - Turn Spy Protocol “Off” (CWT’s).
 - Select “Apply” to Add Information to Address List.

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **SPY** Tab (CWT) Defines the ICAO of the AOS Data Received From Your Sensor (SNR), or Data Collection Unit (DCU) Computer.
 - Define the IP Address of the Sensor Database (SDB) Where the AOS Data is Stored (Usually Your Own NTFS Server).
 - Enter the IP Address in “SDB IP Address” Fields.
 - Enter the Port Number in “Port” Field.
 - Select “OK” to Save to Server.

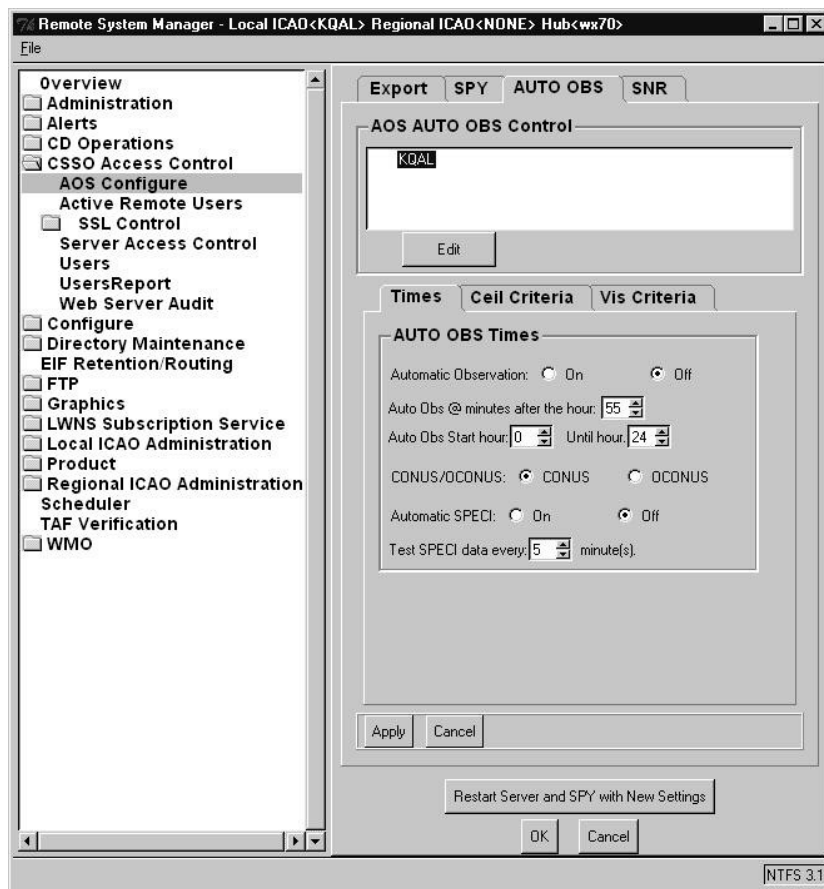
TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **AUTO OBS** Tab Controls the Creation of Automatic Observations From AOS Data.
 - Highlight ICAO to Create Automatic Observations From Sensor Data, Select **Edit**.
 - **Times** Tab Controls the Basic Creation Function.
 - Select Whether Automatic Observation Generations are To be “On” or “Off” (Default is “Off”).
 - Enter When the Auto-Obs METAR is to Be Generated in Minutes Past the Hour (Default is “55” Minutes).
 - Define the Period of the Day When Auto-Obs METARs are to Be Generated.
 - Start Hour and Until Hour (Default is “0000” to “2400”).

TRAINING COURSE

UNIT 5: CSSO



AOS Configure->AUTO OBS->Times

TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **Times** Tab Controls the Basic Creation Function.
 - Select Whether Observation is CONUS or OCONUS.
 - Used for Unit Selection in TACMET Interface.
 - Select Whether Automatic SPECI Observation Generations are To be “On” or “Off” (Default is “Off”).
 - Select Interval to Test for SPECI Criteria
 - If Met, a SPECI Observation is Transmitted.
 - Select “Apply” to Add Information to Address List.
 - Select “OK” to Save to Server.

TRAINING COURSE

UNIT 5: CSSO

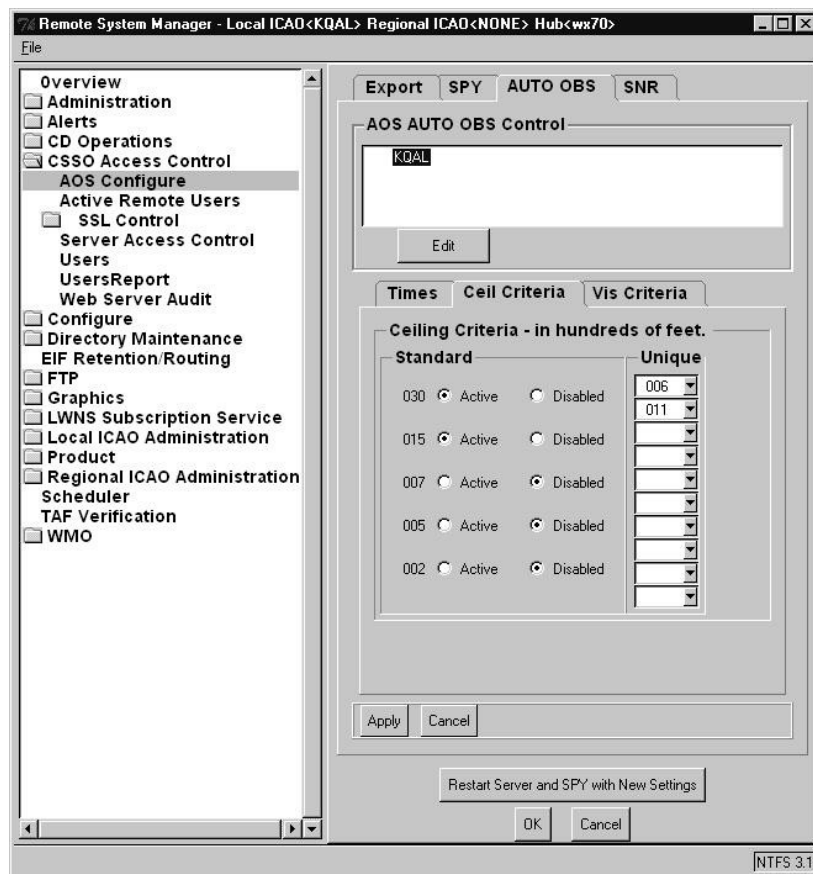
- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **Times** Tab Controls the Basic Creation Function.
 - Observation is Transmitted to Whatever Default Transmit Destination is Configured.
 - RSM->**Configure->Transmit Destinations.**
 - For Standard AOS Configuration, Only PRESSURE, WINDS, TMP/DPT is Formatted and Transmitted.

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **Ceil Criteria** Tab Controls the SPECI Tests Perform for Ceiling.
 - Select Active or Disabled for the Standard Set of Ceiling Criteria.
 - Select Unique Ceiling Criteria from Pulldown List.
 - Select “Apply” to Add Information to Address List.
 - Select “OK” to Save to Server.

TRAINING COURSE

UNIT 5: CSSO



AOS Configure->AUTO OBS->Ceil Criteria

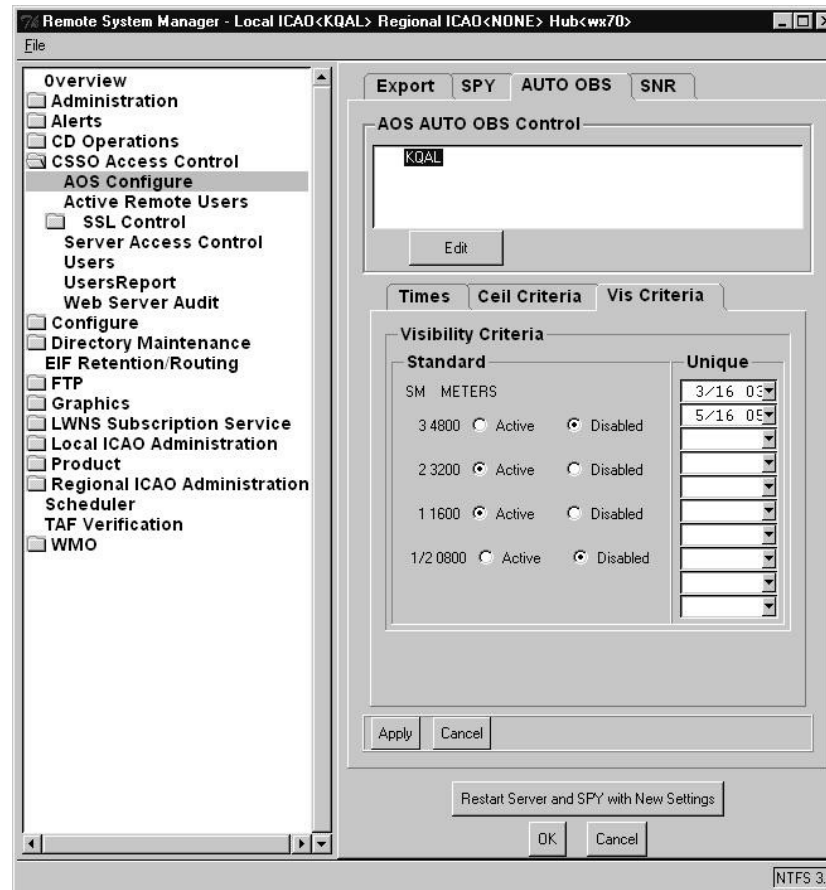
TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **Vis Criteria** Tab Controls the the SPECI Tests Perform for Visibility.
 - Select Active or Disabled for the Standard Set of Visibility Criteria.
 - Select Unique Visibility Criteria from Pulldown List.
 - Select “Apply” to Add Information to Address List.
 - Select “OK” to Save to Server.

TRAINING COURSE

UNIT 5: CSSO



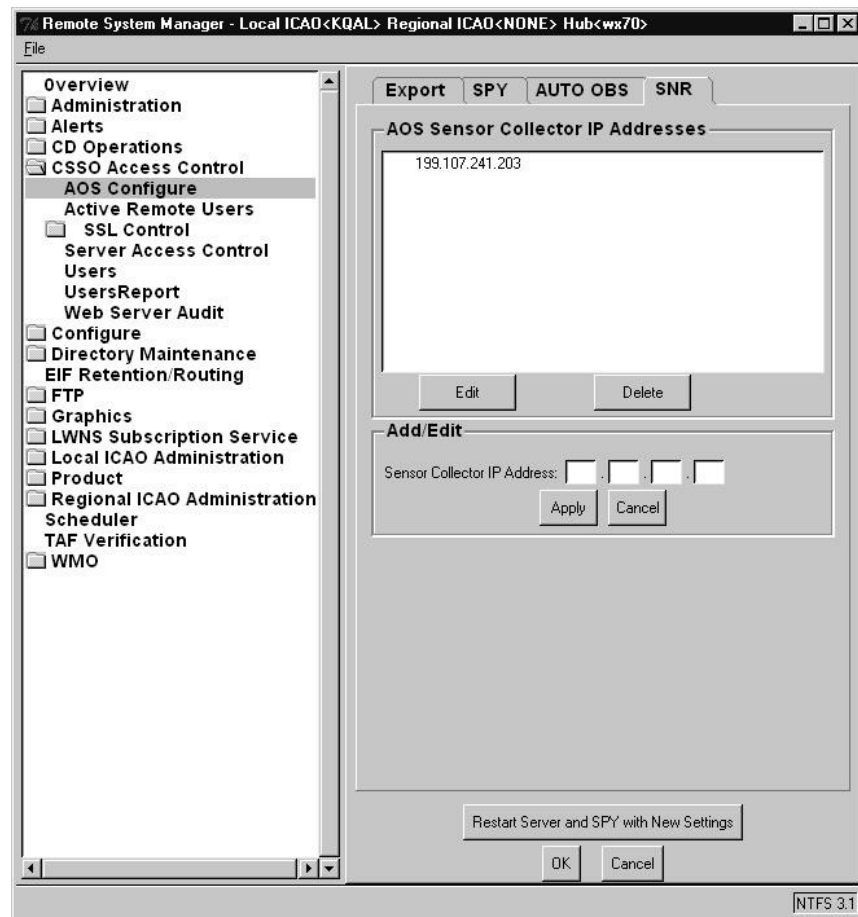
AOS Configure->AUTO OBS->Vis Criteria

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->AOS Configure.
 - **SNR** Tab Defines Location of SNR/DCU Computer.
 - Enter the SNR IP Address in “Sensor Collector IP Address” Fields.
 - Highlight Entry and Select “Edit” to Modify SNR IP Address.
 - Highlight Entry and Select “Delete” to Remove SNR IP Address.
 - Select “Apply” to Add Information to Address List.
 - Select “OK” to Save to Server.

TRAINING COURSE

UNIT 5: CSSO



AOS Configure->SNR

UNIT 5: CSSO

- **CSSO.**
 - Secure Socket Layer (SSL) and Secure HTTP (S-HTTP).
 - SSL Uses a Technique Called Public Key Encryption That Uses a Pair of Asymmetric Keys for Encryption and Decryption.
 - Each Pair of Keys Consists of a Public Key (Obtained From a Certificate Created by an Outside Agency) and a Private Key (Created Locally).
 - The Public Key is Made Public by Distributing it Widely. The Private Key is Never Distributed; it is Always Kept Secret.
 - Data That is Encrypted With the Public Key Can Only be Decrypted With the Private Key, and Vice Versa.

UNIT 5: CSSO

- **CSSO.**
 - Secure Socket Layer (SSL) and Secure HTTP (S-HTTP).
 - The Secure Version of HTTP Uses URLs That Begin With “https” Rather Than “http”, and a Different Server Port (by Default, Port 443).
 - SSL is Designed to Establish a Secure Connection Between Two Computers, While S-HTTP is Designed to Send Information Securely.

UNIT 5: CSSO

- **CSSO.**
 - Secure Socket Layer (SSL) and Secure HTTP (S-HTTP).
 - NTFS Clients Don't Support Client-Server Authentication Using SSL.
 - NTFS Uses SSL for Encryption Purposes Only.
 - Using a Browser Will Require the User to Accept the Server Certificate Before Any Data Transfers are Allowed.
 - Identical to JAAWIN Logins.

UNIT 5: CSSO

- **CSSO.**
 - Obtaining an SSL Public-Key Server Certificate.
 - Create a Server Private Key and Certificate Signing Request (CSR).
 - Export CSR to Floppy Disk From NTFS Server.
 - Request a Server Certificate From the DoD Public-Key Infrastructure (PKI) Web Site.
 - Import PKI Certificate into NTFS Server From Floppy Disk.

TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->SSL Control.
 - Certificate Control.
 - Export CSR.
 - Import Certificate.

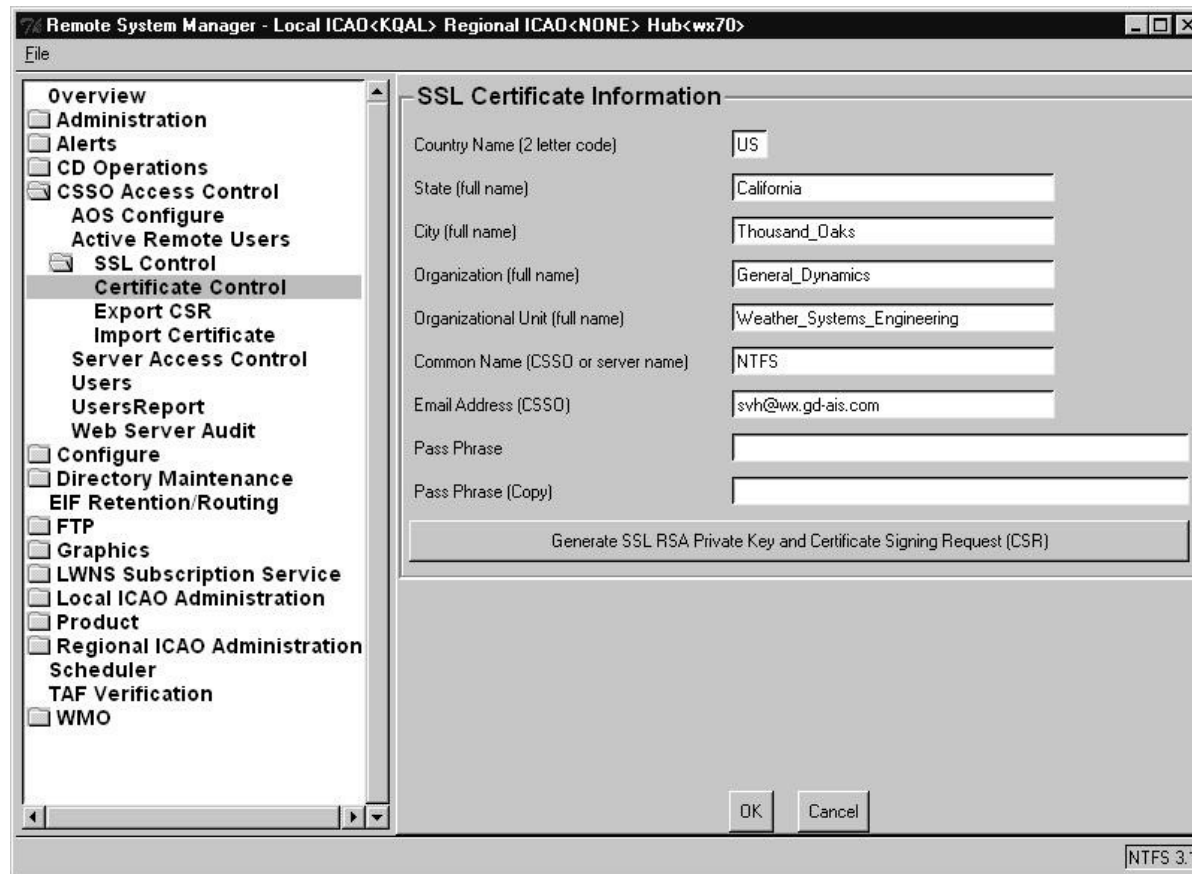
TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->SSL Control.
 - Certificate Control.
 - Enter Required Information as Stated in the Field Prompts.
 - Country Name - 2-Letter Code (e.g., US).
 - State Name - Full Name (e.g., Nebraska).
 - City - Full Name (e.g., Bellevue).
 - Organization - Full Name (e.g., United States Air Force).
 - Organizational Unit - Full Name (e.g., Air Force Weather Agency).

TRAINING COURSE

UNIT 5: CSSO



Certificate Control

TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->SSL Control.
 - Certificate Control.
 - Enter Required Information as Stated in the Field Prompts.
 - Common Name - CSSO or Server Name (e.g., NTFS). This is the Name the Certificate Will Be Listed.
 - E-Mail Address - Enter E-Mail Address to Notify When the Certificate is Completed.
 - Pass Phrase - Create Pass Phrase Using Standard NTFS Password Rules (Used to Initiate SSL on the NTFS Server).

TRAINING COURSE

UNIT 5: CSSO

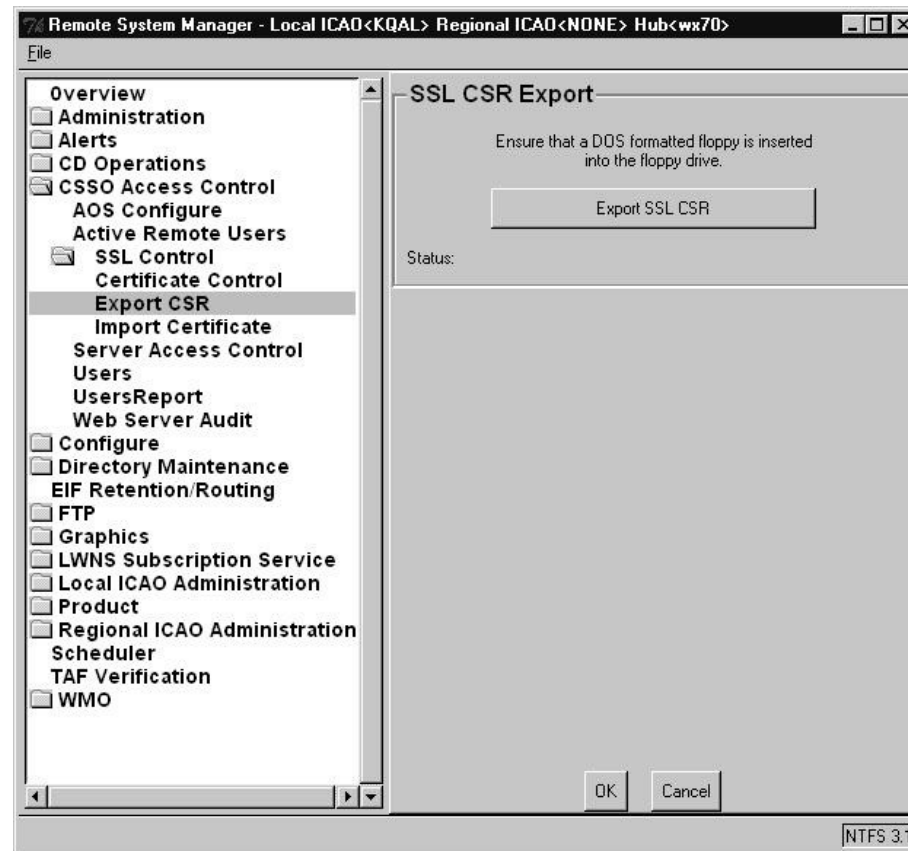
- **CSSO.**
 - CSSO Access Control->SSL Control.
 - Certificate Control.
 - Select “Generate SSL RSA Private Key and Certificate Signing Request (CSR)” to Generate Required Files.
 - server.key - Private Key.
 - server.csr - CSR.
 - Must Obtain a New Certificate if Another server.key is Generated.

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->SSL Control.
 - Export CSR.
 - Insert DOS Formatted Floppy into Floppy Drive.
 - Select “Export SSL CSR”.
 - server.csr Will Be Copied to the Floppy.
 - Status Will Display “Write Successful”.
 - Floppy Will Eject Automatically (Manually Eject for Linux, E4500, and SS60 Servers).

TRAINING COURSE

UNIT 5: CSSO



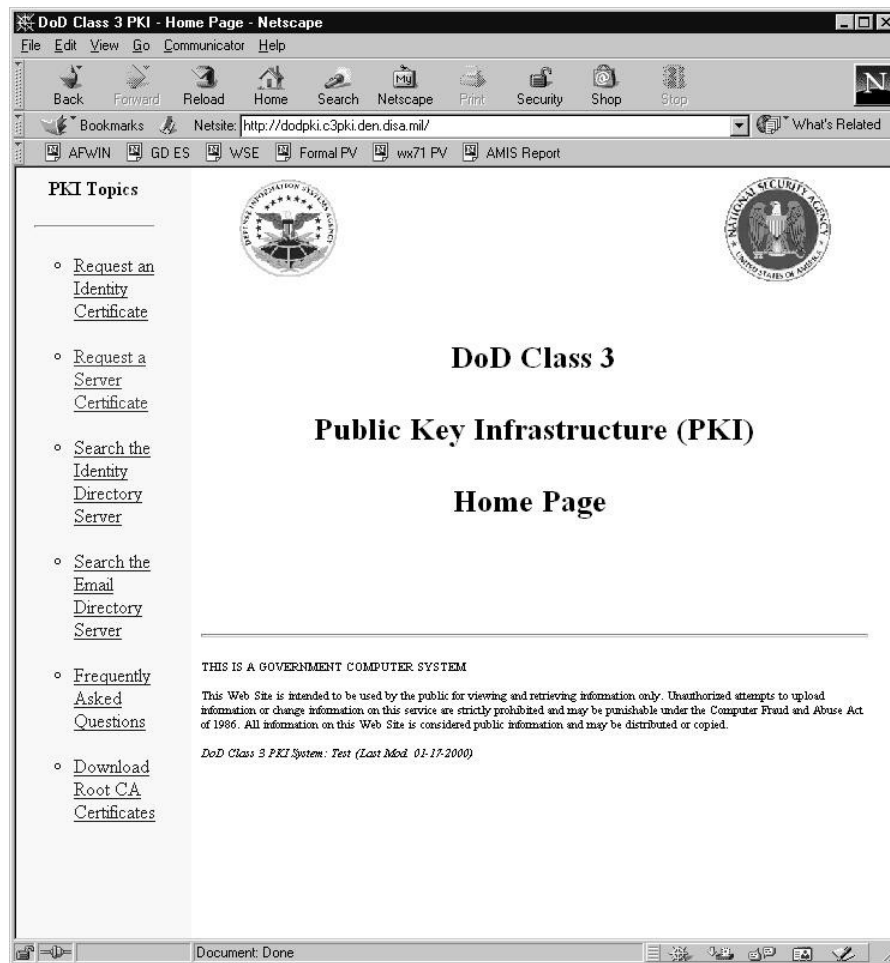
Export CSR

UNIT 5: CSSO

- **CSSO.**
 - From a Browser, Login to DoD Public Key Infrastructure (PKI) Web Site (e.g., <http://dodpki.c3pki.den.disa.mil>).
 - Select “Request a Server Certificate”.
 - From WordPad, Display server.csr File From Floppy.
 - Copy/Paste CSR into “PKCS #10 Request” Area.
 - Only Area Bounded by BEGIN/END CERTIFICATE REQUEST, Including All Leading and Trailing Dashes.
 - Fill-in Name, E-Mail Address, and Phone Number Information.
 - Select “Submit”.

TRAINING COURSE

UNIT 5: CSSO



DoD PKI Web Page

TRAINING COURSE

UNIT 5: CSSO

```
Certificate Request:
Data:
  Version: 0 (0x0)
  Subject: C=US, ST=California, L=Thousand Oaks,
O=General_Dynamics, OU=Weather_Systems_Engineering,
CN=AMIS/Email=svh@wx.gd-es.com
  Subject Public Key Info:
    Public Key Algorithm: rsaEncryption
    RSA Public Key: (1024 bit)
      Modulus (1024 bit):
        00:cc:f5:57:fa:81:6f:1f:86:36:d5:37:a7:a9:0f:
        6b:44:c2:90:86:6e:5f:83:ae:9f:21:38:90:78:77:
        9a:b4:42:95:d2:ac:ee:e3:1b:78:69:f0:1c:1f:7b:
        e4:d1:a6:fa:2d:b7:ec:cc:a9:62:7a:1d:dc:45:96:
        62:4b:94:04:f9:70:d9:ba:91:37:9d:54:b1:78:ee:
        c3:3d:f2:90:d5:3e:28:a3:97:f5:b5:01:12:08:3b:
        32:df:c8:6f:6c:5a:6f:58:32:60:81:af:b0:17:2d:
        30:46:c3:0e:40:0c:26:03:20:94:13:8d:e9:8d:8f:
        23:f5:d0:91:21:23:44:db:1f
      Exponent: 65537 (0x10001)
  Attributes:
    a0:00
  Signature Algorithm: md5WithRSAEncryption
    62:67:a9:db:8f:3e:3b:56:87:2e:86:4d:36:26:ff:47:90:06:
    48:a7:85:d3:6d:a0:d4:16:09:9c:29:42:00:39:7b:57:47:0b:
    1e:50:b0:26:0c:3b:50:b0:9e:d0:44:4c:bc:fa:df:d7:b5:fe:
    27:c7:6e:ca:d7:96:cf:61:a6:42:b1:a1:a9:5c:b0:dd:ee:f8:
    6c:64:a2:c3:cb:19:e9:70:e3:5e:ce:7a:32:02:3c:ff:24:62:
    df:32:e3:0c:02:e4:56:f6:af:d3:66:3d:46:4f:9f:b6:c6:c1:
    a0:56:d7:c5:6e:1c:98:27:88:b8:83:d6:d1:51:93:7a:b8:5a:
    a3:43
-----BEGIN CERTIFICATE REQUEST-----
MIIB7DCCAUVCAQAwgasxCzAJBgNVBAYTA1VTMRMwEQYDVQIEwPDYXpZm9ybmlh
MRYwFAYDVQQHFA1UaG91c2FuZ2F9PYWtzMRRkFwYDVQQKFBBH2W51cmFsXOR5bmFt
aWNzMSQwIgYDVQQLFbTcXZWF0aGVyX1N5c3RlbXNfRW5naW51ZXJpbmcxDTALBgNV
BAMTBEFNSVMxHzAdBgkqhkiG9w0BCQEWEN2aEB3eC5nZC11cy5jb20wgZ8wDQYJ
KoZIHvcNAQEBAQADgYOAAMIGJAoGBAMz1V/qBbx+GNtU3p6kPaOTCkIZuX4OunyE4
kHh3mrRCldKs7uMbeGnwHB975NGm+1237MypYnod3EWWYkuUBP1w2bqRN51UsXju
wz3ykNU+KKOX9bUBEGg7Mt/Ib2xab1gyYIGvsBctMEbDDkAMJgMglBON6Y2PI/XQ
kSEjRNsFagMBAAGgADANBgkqhkiG9w0BAQQFAA0BgQBiZ6nbjz47Vocuhk02Jv9H
kAZIp4XTbaDUFGmcKUIAOXtXRwseULAmDdtQsJ7QREy8+c/Xtf4nx27K15bPYaZC
saGpXLDd7vhsZKLdYxnpcONeznoyAjz/JGLfMuMMAuRU9q/TZj1GT5+2xsGgVtFf
bhyYJ4i4g9bRUZN6uFqjQw==
-----END CERTIFICATE REQUEST-----
```

Copy

CSR (server.csr)

TRAINING COURSE

UNIT 5: CSSO

Paste CSR

Complete

Request a Server Certificate - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Netsite: <https://ca-4.c3pki.den.dsa.mil/ManServerEnroll.html> What's Related

APWIN GD ES WSE Formal PV wx71 PV AMIS Report

Server Certificate Enrollment (for Server Administrators)

Use this form to submit a request for a server certificate. You must submit a PKCS #10 request. If you have a Netscape server, create a PKCS#10 request by using the Netscape Administration Server instance associated with the server for which you are requesting the certificate. In the Netscape Administration Server forms, choose Encryption, then Request Server Certificate.

If you are not using a Netscape server, follow the appropriate steps to generate a PKCS #10 request with the server you have.

After you click the Submit button, your request will be submitted to an issuing agent for approval. You will receive the certificate in email when it has been approved.

PKCS #10 Request
Paste the PKCS #10 request into this text area.

Server Administrator Contact Information

Name:

Email:

Phone:

Additional Comments
If you have any additional comments for the person who will process your certificate request, write them here.

Document: Done

DoD PKI Web Page

UNIT 5: CSSO

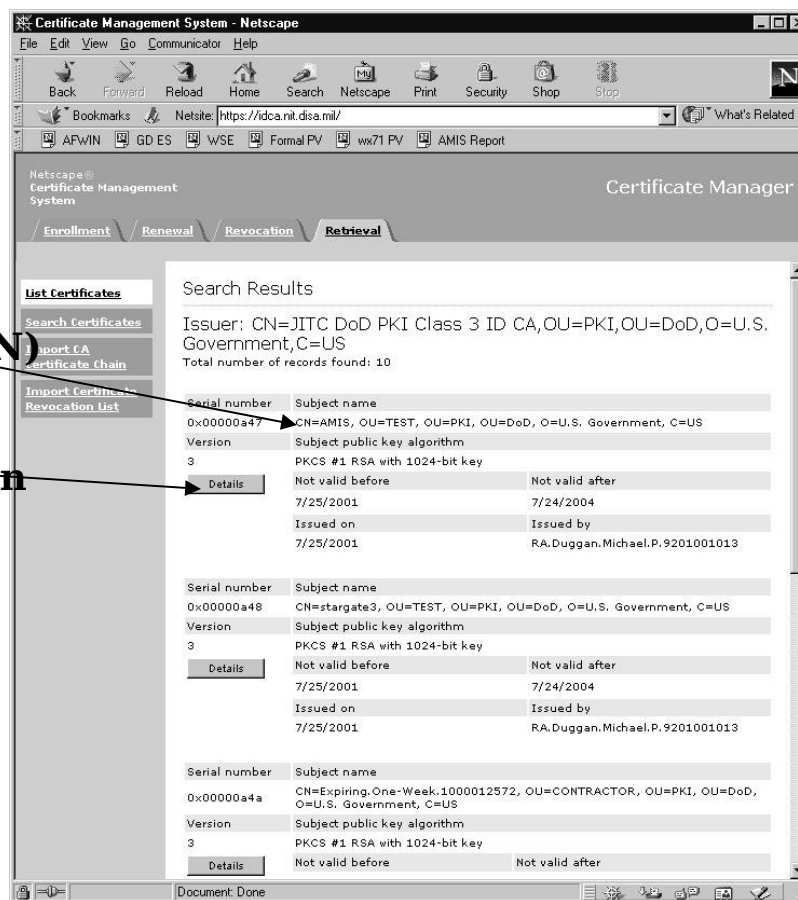
- **CSSO.**
 - From Returned E-Mail, Follow Links to Display Certificate using Serial Number and Common Name to Identify.
 - Select “Details” to View Certificate.
 - Copy/Paste Certificate into WordPad.
 - Only Area Bounded by BEGIN/END CERTIFICATE, Including All Leading and Trailing Dashes.
 - Save to DOS Formatted Floppy as a .txt File Named “server.crt”.

TRAINING COURSE

UNIT 5: CSSO

Common Name (CN)

Details Selection



Returned E-Mail Link

TRAINING COURSE

UNIT 5: CSS0

```
Certificate: O=DAA7
```

Certificate contents

```
Certificate:  
Data:
```

Installing this certificate in a server

The following format can be used to install this certificate into a Netscape server.

```
-----BEGIN CERTIFICATE-----  
MIID7TCCAagAwIBAgICCCkwDQYJKoZIhvcNAQEFBQAwaDELMAkGA1UEBhMCVVMx  
GDAWBgNVBAQTD1UuUy4gR292ZXJubWVudDEHMAoGA1UECmMRGR9EMQwCgYDVQQQL  
EwNQSO0KxzIAhBgNVBAMTGkpJVEMGRG9EIFBLSSBBdGZscyAzIEIENBMBA4XDTAx  
MDcyNTQ4NDMyMioXDTAOMDcyNDE4NDMyMioyTELMAkGA1UEBhMCVVMxGDAWBgNV  
BAQTD1UuUy4gR292ZXJubWVudDEHMAoGA1UECmMRGR9EMQwCgYDVQQLEwNQSO0Kx  
DTALBgNVBAsTBFRFRU1QxDTALEgNVBAMTEBFNSVHwgZ8wDQYJKoZIhvcNAQEBBQAD  
gYOAIGJAOGBAla+VF2T+t7bu3Uyg1skLsfNBwn25QTrQ8K7vUngduq1Wjz/8q  
3ioxHJhAzOnAtRD+sLzHOtpBgmFbWOcbAOhX+fIgfyfE1EdmfDzJ73OrreWmKTP  
A6YO7xI4t1lloiczfor53WIwEsDgMla1KrtViIWrx9nwr+EFgkTGz1z5AGMBAAgj  
ggGrMIIPzAdBgNVHQ4EFgQU/LN+BobBYGmPuJNhhdRibpp19UUwDgYDVR0PAAQH/  
BAQDAgUgMIGzBgNVHR8EGsgugagwgaWGaKg2+GgZxsZGFwOi8vaWRkcycySuaXQu  
ZGlzYS5taWwY241M2RKSVRBJTIwRG9EJTItwUetDJTIwG2xhc3MIMjAzJTIwSUQ1  
MjBDQSUY291JTNKUetJJTUjb3U1M2REb0Q1MhaVJTNKVS5TL1UyMEdvdmVybml1D  
bnQlMmNJjTNKVVM/Y2VydGlnaWNhdGVyZXZvY2VFOA9wbzGLzdGtiaUw5cncwHwYD  
VR0JBGgFoAU4k3Iq14MGW+XWnRJmx1YGagYrAwFgYDVR0GA8wDIALBg1ghkgBz  
ZQBBCwUwgyYGA1UdeGR/MH2Ge2xkYXA6Ly9pZGRzLm5pdC5kaXNhLmlpbC9jbGUz  
ZEppVEMlMjBEb0Q1MjBQSO0KLMjBDbdGZscyUyMDMlMjBjRCUYMENBjTUjb3U1M2RUZ  
A0K1MhaVndSUzZERVRCUyY281M2RVLI1MuJTIIwR292ZXJubWVudCUyY2IHM2RVzAN  
BgkqhkiG9w0BAQFAAABQChSiUN9NrwyBfrAwQjoO3Q8msGyrAT76qbpP6V+E  
eCYUSuuE+RfktKBjUTm7cRW4zmoLO1/I9PEXd3MwjexsFu6223PLLNKOq3Zeikv  
SF8aUs6OG7oKR3m4k3v4AEkKmi1DBTxzUjf/4yCU2TXdg8AJjesfvhoal1k9Xg6  
jQ==  
-----END CERTIFICATE-----
```

Copy

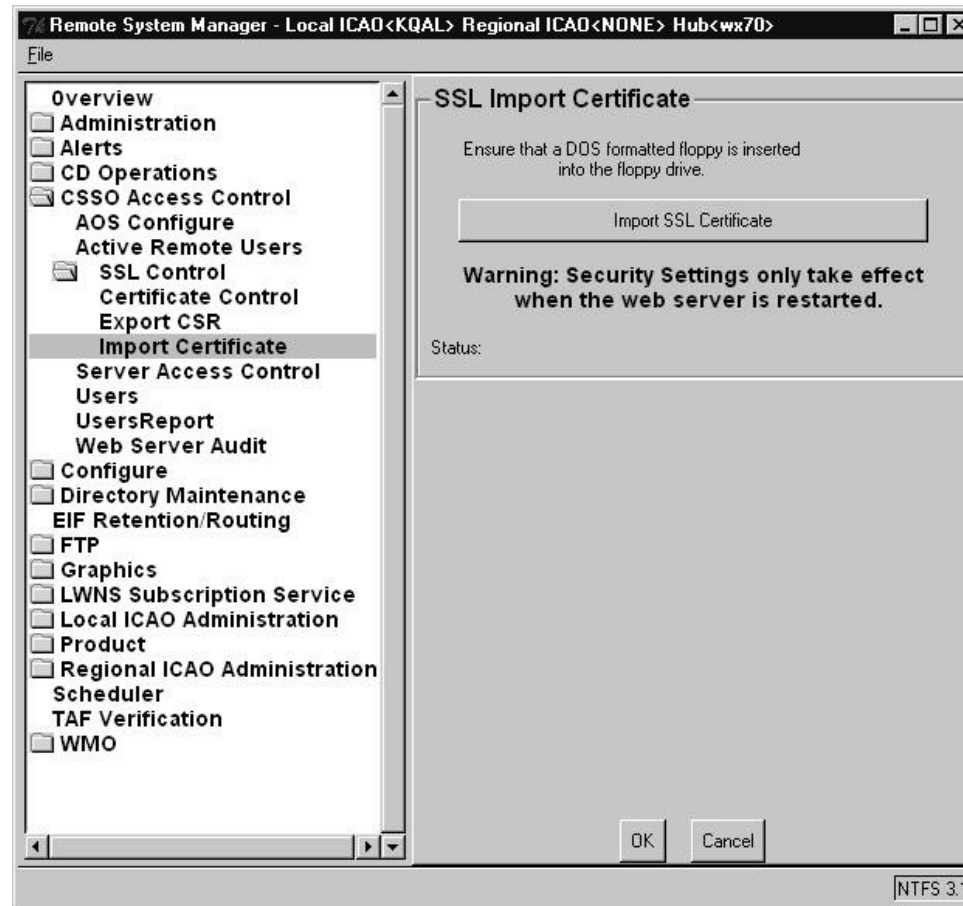
Certificate (server.crt)

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->SSL Control.
 - Import Certificate.
 - Insert Floppy Containing server.crt File into Floppy Drive.
 - Select “Import SSL Certificate”.
 - server.crt Will Be Copied to the Server.
 - Status Will Display “Read Successful”.
 - Floppy Will Eject Automatically (Manually Eject for Linux, E4500, and SS60 Servers).

TRAINING COURSE

UNIT 5: CSSO



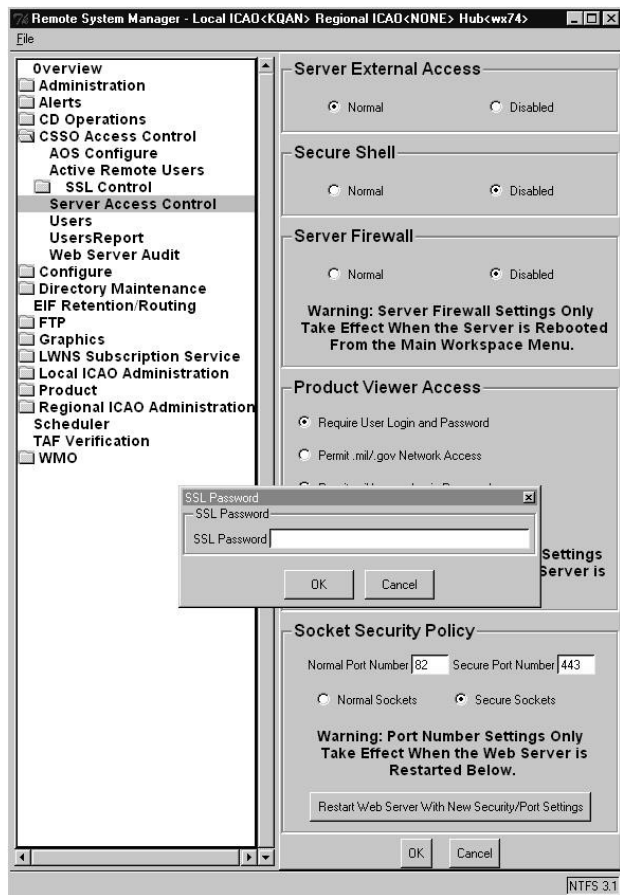
Import Certificate

UNIT 5: CSSO

- **CSSO.**
 - Configuring the Server to Use SSL.
 - **CSSO Access Control->Server Access Control.**
 - Select "Secure Sockets" and Enter "Port Number".
 - Use Default Port 443 Unless Directed Otherwise.
 - Select "Restart server with new Security/Port settings".
 - SSL Password Panel is Displayed.
 - Enter the Same Password as Used to Create the CSR (Pass Phrase), and Select "OK"... SSL is Now Enabled.
 - These Steps Must Be Accomplished Each Time the Web Server is Restarted, or if the NTFS Server is Rebooted.
 - The Web Server May Be Listening on the SSL Port, But Will Not Accept Any Connections Unless the Correct Password is Entered.

TRAINING COURSE

UNIT 5: CSSO



Server Access Control

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->Server Access Control.
 - Added SSH Disabled/Normal Selections.
 - Must Be Allowed by Local BNCC.
 - Encryption Concerns.
 - SSH is Only Required to be Enabled When Remote Maintenance is Being Accomplished via NIPRNET.
 - Allows for Possible Removal of Netblazer Router/Modem.
 - Only Need to Select “OK” to Enable if Selected.

TRAINING COURSE

UNIT 5: CSSO

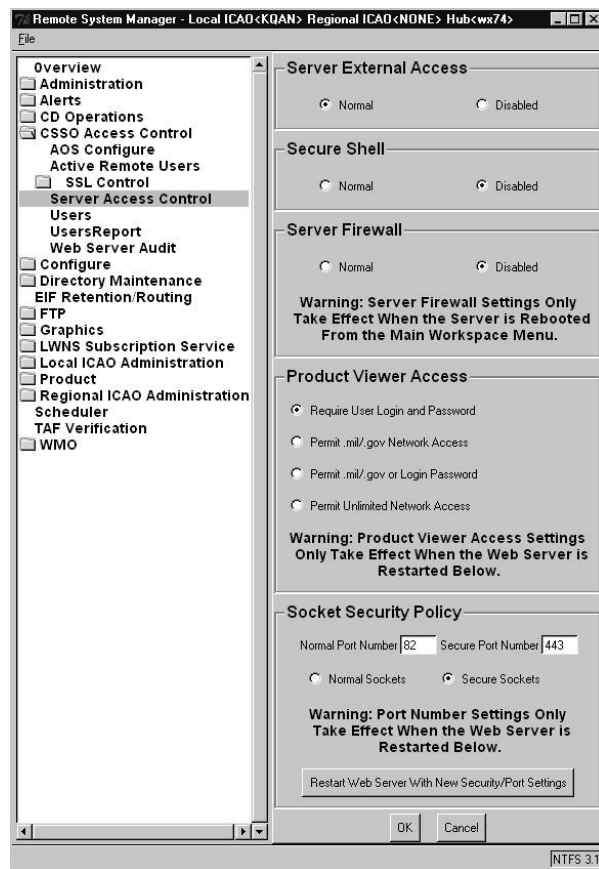
- **CSSO.**
 - CSSO Access Control->Server Access Control.
 - Added Server Firewall Disabled/Normal Selections.
 - COTS Installed IP Filtering Software (Firewall).
 - Provides Protection From Unauthorized Accesses on Base LAN Port(s).
 - Disable/Enable Using Discretion of CSSO.
 - Must Shutdown and Reboot Server Before Firewall Settings are Activated.

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->Server Access Control.
 - Added "Permit .mil/.gov or Login Password" Access.
 - If a User is Coming From a .mil/.gov Address, No Username/Password is Required, Otherwise a Username/Password is Required.
 - “.mil” Access Rules Changed From “.af.mil” to Just “.mil”.
 - “Permit .mil/.gov Network Access”.

TRAINING COURSE

UNIT 5: CSSO



Server Access Control

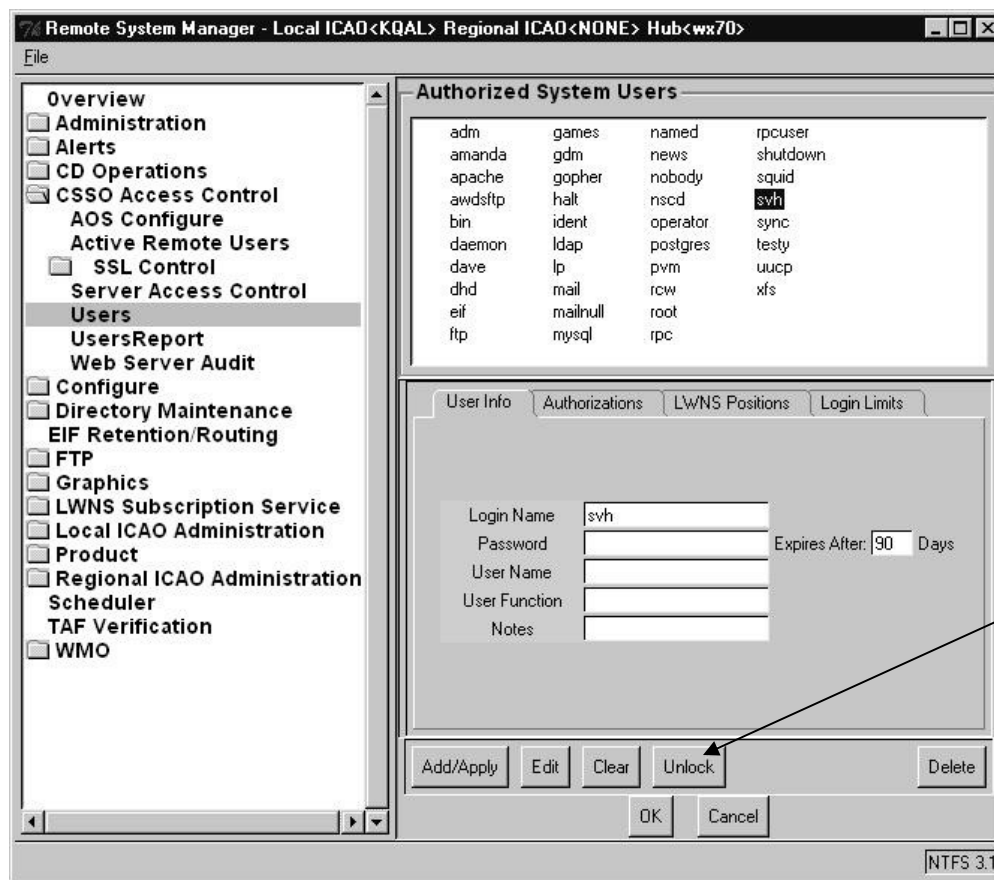
TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->Users.
 - New MMI for Information (“Tabs” Format).
 - Added "Unlock" Button To Unlock “Locked-out” Users (Upon Exceeding Retry Limit).

TRAINING COURSE

UNIT 5: CSSO



Unlock Users

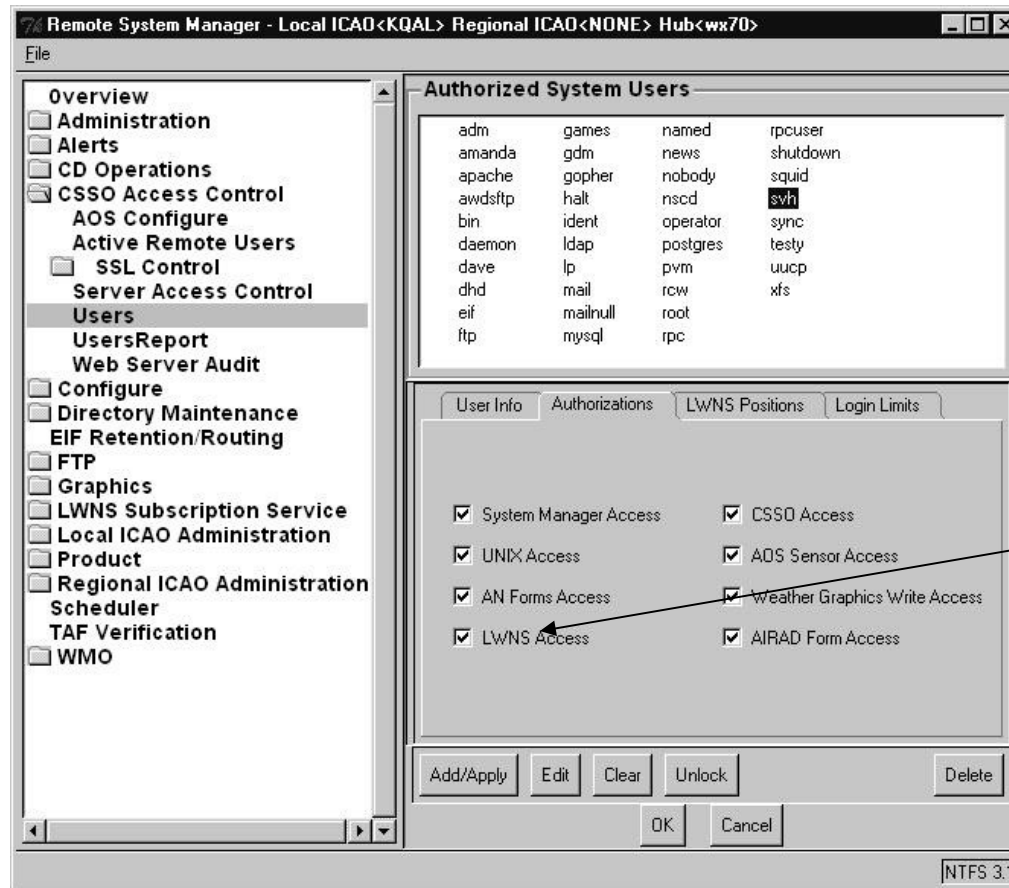
CSSO Access Control->Users

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->Users.
 - Added "LWNS Access" Under Authorizations Tab.
 - Only Needed for Users Needing LWNS/LOC Access.

TRAINING COURSE

UNIT 5: CSSO



LWNS Access

Users->Authorizations

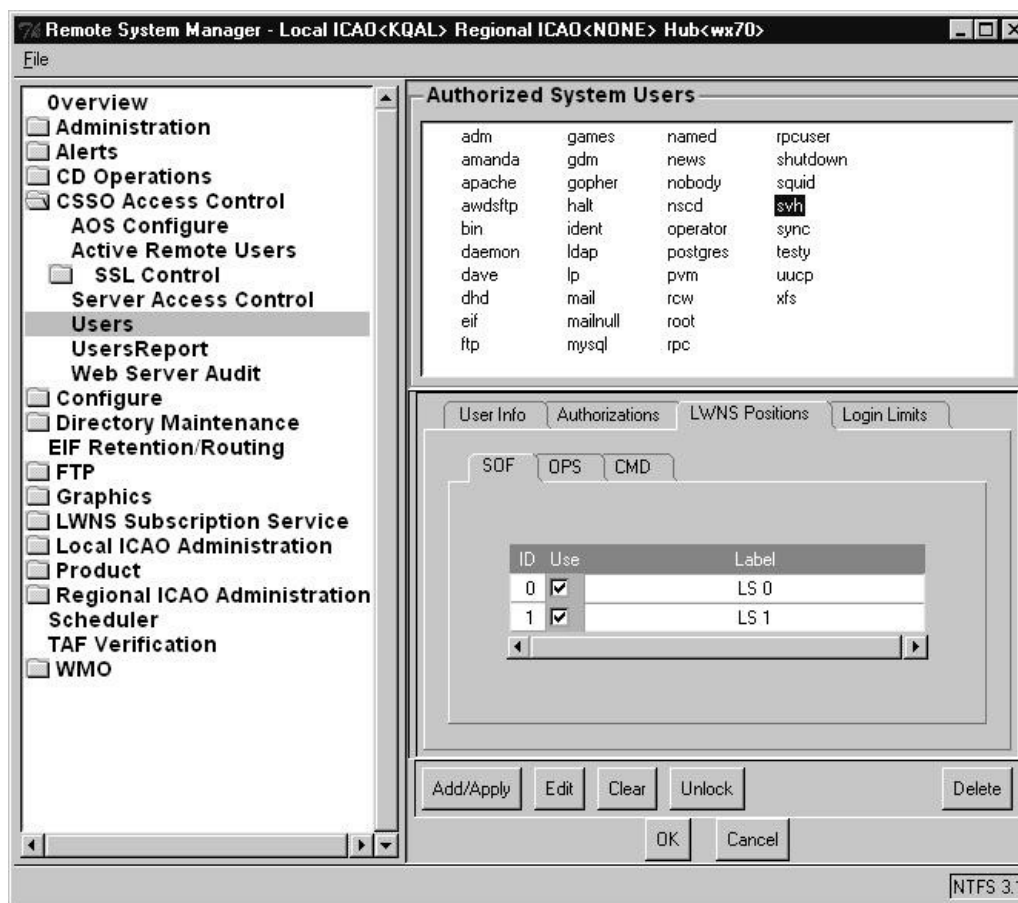
TRAINING COURSE

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->Users.
 - Added "LWNS Positions" Tab.
 - Will be "Grayed-Out" Unless User Has "LWNS Access".
 - Lists LWNS/LOC Positions (SOF, OPS, and CMD) Defined in **LWNS Subscription Service->Active Positions.**
 - Select All LWNS/LOC Positions User is Authorized to Login.
 - Users Given "LWNS Access" Will, by Default, Always be Granted Access Using the "NON" Position (no Alerts are Displayed, and no WW/WA Acknowledgements Allowed).

TRAINING COURSE

UNIT 5: CSSO



Users->LWNS Positions

UNIT 5: CSSO

- **CSSO.**
 - CSSO Access Control->Users Report.
 - Allows CSSO's to Display, Save to Floppy, or Print Defined User Information.
 - Saving to Floppy Will Save File as an Excel Importable Format.
 - Saved as "users.txt".

UNIT 5: CSS0

[illegible]

Users Report



TRAINING COURSE

UNIT 6: A/N

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N View.**
 - Added Ability to View CWT LWDS from OWS Without Logging into CWT.
 - Select Local Weather Data Set.
 - List of ICAOs in Upper-Left Displays All Configured Regional and Local ICAOs.
 - Configured in Local and Regional ICAO Administration.
 - Regional ICAO Network Settings Configured in Site Data Information->Network.
 - Select Desired ICAO to View LWDS.

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N View.**
 - Added "Merged Obs Report" Selection.
 - Replicates LWNS/ATC and FCF/ATC Merged Observation Function.
 - METAR Clears Display and Starts the Merge Over Again.
 - SPECI's, LOCAL's, and AWO's Merge With Baseline METAR, With All Differences Highlighted Between Each Subsequent Observation.
 - Use "*" in the Observation Form to Remove an Element.

TRAINING COURSE

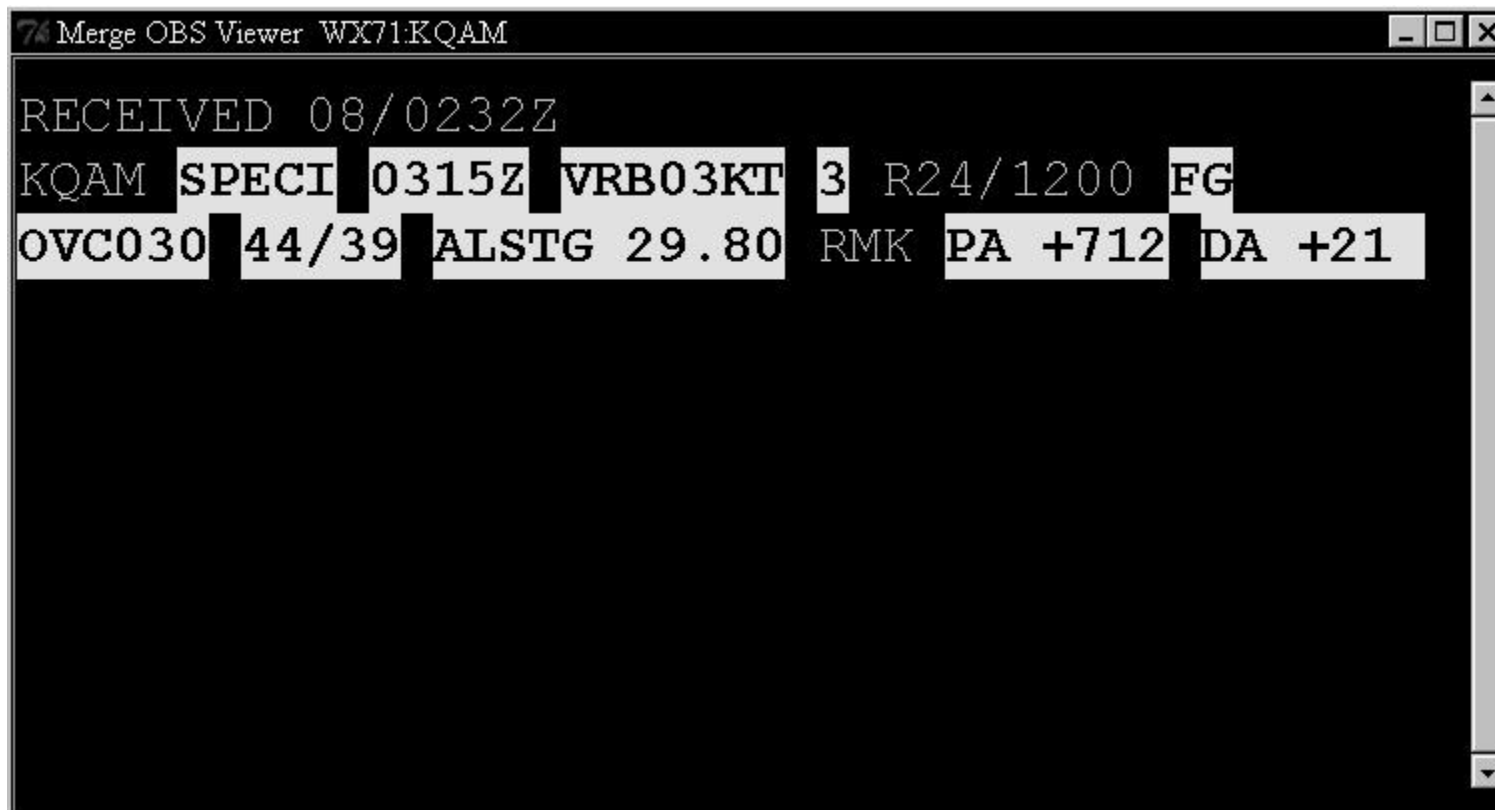
UNIT 6: A/N

- **Weather A/N View.**

<p>Local Weather Data Set</p> <p>View-by-Criteria</p> <p>24 Hour Obs List</p> <p>RAREP List</p> <p>Solar/Lunar Data</p> <p>ACK Report</p> <p>Merged Obs Report</p>

TRAINING COURSE

UNIT 6: A/N



Merged Obs Report

TRAINING COURSE

UNIT 6: A/N

- **Receipt Acknowledgement Products (RAPs).**
 - Only Available for Weather Warnings, Watches, and Advisories.
 - A RAP is Automatically Generated When Users of the LWNS/LOC or LWNS/ATC Clients Acknowledge Urgent Warning, Watch, or Advisory Alerts.
 - Alert Will Continuously Sound Until Alert is Acknowledged.
 - RAP is Transmitted to the LWNS “Home” Server.
 - RAP is Transmitted to the Originating NTFS Server (if Different than “Home” Server) of Product, Along With the Current List of LWNS Positions.

TRAINING COURSE

UNIT 6: A/N

- **Receipt Acknowledgement Products (RAPs).**
 - OWS's Will Need to Configure an "awds" Type Destinations for All CWT's for Receipt of LWNS Positions and Acknowledgements.
 - **Configure->Destinations.**
 - CWT's Will Need to Configure an "awds" Type Destination to Their OWS to Transmit LWNS Positions and Acknowledgements.
 - **Configure->Destinations.**
 - **Use the OWS ICAO as the Symbolic Name.**

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N View.**
 - Added "Ack Report" Selection.
 - Allows NTFS Client Users to Generate, Display and Print Warning, Watch, and/or Advisory RAP Reports.
 - Select "Query" to Query the NTFS Server for a List of Active and Canceled Products.
 - Highlight Warning, Watch, or Advisory, and Select "Make Report".
 - List is Presented Displaying All LWNS Positions, and If Position Has Acknowledged or Not.
 - Select "Refresh Report" to Update RAP Report.
 - A "C" After the Time Indicates That the Product Has Been Canceled.
 - Available Only 1 Hour After Cancellation.

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N View.**

<p>Local Weather Data Set</p> <p>View-by-Criteria</p> <p>24 Hour Obs List</p> <p>RAREP List</p> <p>Solar/Lunar Data</p> <p>ACK Report</p> <p>Merged Obs Report</p>

TRAINING COURSE

UNIT 6: A/N

74 Acknowledgment Report

HUB: WX71

Select an Local Weather product.

ADU 07-009 KQAM 28/1839Z C	
ADU 07-010 KQAM 28/1838Z	
WARN 07-002 KQAM 28/1840Z	
WARN 07-003 KQAM 28/1841Z C	
WTCH 07-002 KQAM 28/1840Z	
WTCH 07-003 KQAM 28/1840Z	

ADU 07-010 KQAM 28/1838Z			
TOWER_0	NO ACK	*****	SCOTT_UAN_HOR
LA01	NO ACK	*****	
LA02	NO ACK	*****	
TESTATC	NO ACK	*****	TEST CONTACT
COMMAND_POST_0	ACKED@	28/1842Z	CAPT_MINOR
LC01	NO ACK	*****	
TESTCMD	NO ACK	*****	TEST_CMD_CONT
BASE_POOL	NO ACK	*****	MR._SWIM
LO01	NO ACK	*****	
LO02	NO ACK	*****	
RAPCON_0	NO ACK	*****	SRA_FLY
RAPCON_1	NO ACK	*****	SSGT_RAP
LR02	NO ACK	*****	LR02
TESTRAP	NO ACK	*****	TEST CONTACT
SoF_Super	ACKED@	28/1843Z	Capt_Imapilot
LS01	NO ACK	*****	LS01

Make Report Cancel Query Refresh Report Print

Status

Receipt Acknowledgement Report

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N View.**
 - Added "Ack Report" Selection.
 - Select "Print" Report to Print the Displayed Report.
 - Server Will Automatically Print RAP Report When Warning, Watch, or Advisory is Re-issued, Expired, or Canceled.
 - Will Report on Acknowledgements Prior to Re-issue, Expiration, or Cancel.

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N Forms.**
 - Observation.
 - Added Capability to COR Observations in the Past (i.e., After a Subsequent METAR is Transmitted).
 - This Function Emulates the “redlined” Corrections Currently Performed on the 3803 “After-the-Fact”.
 - **Modify Existing** Must Still Be Used for CORing Observations Before a Subsequent METAR is Transmitted.
 - To correct an “After-the-Fact” Observation, Select **Edit 3813**.
 - Enter the File Time of the Observation to “Edit” at the “File Time from 3813” Prompt, then Select OK.

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N Forms.**
 - Observation.
 - To “redline” an “After-the-Fact” Obs, Select **Edit 3813**.
 - The Latest Observation From That File Time is Loaded into the Observation Form.
 - Enter the Corrected Information, and Select **Transmit**.
 - All Functions Work as in Modify Existing, Except:
 - Date Time Field is Locked.
 - Mod Group Prefilled With “COR” and Locked.
 - Upon Transmit, the Observation Won’t Be Disseminated Locally or Longline.
 - To Leave “Edit 3813” Mode, Select Either Restore, Clear, Modify Existing, or Exit the Form.

TRAINING COURSE

UNIT 6: A/N

Surface Observation Form

Select ICAO Auto Compute - ON View Longline HUB: wx74

Transmit Print View Save Restore Clear Modify Existing Edit 3813

Type: METAR SPECI LOCAL LOCAL-MISHAP ICAO KQAN

Date Time [] Mod Group COR RTD NULL

Wind [] G [] KT Variability [] V []

Visibility [] SM Longline RVR [] / [] FT

Weather [] Local RVR []

Sky []

Edit 3813

Observation Form

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N Forms.**

- TAF.

- Moved Wind Shear Remarks Between Sky and Icing.

- Longline Format.

- KQAM TAF 051919 24010KT 8000 FG SCT020
SCT050 **WS200/20080KT** 611304 531604
QNH2989INS;

- Local Format.

- KQAM FCST 0519-0619 23010KT 5 FG
SCT020 SCT050 **WIND SHEAR 19080KT AT**
200 LGT MXD ICG 130-170 MDT TURB IN
CLEAR AIR 160-200 ALTIMETER29.89INS
30/PJV

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N Forms.**
 - Weather Warning/Watch.
 - Added RAP Report Selection.
 - Select “Acknowledged” to Display RAP Report Window.
 - Allows Users to Generate, Display and Print Warning and Watch RAP Reports.
 - All Other Functions are the Same as Discussed Earlier.

TRAINING COURSE

UNIT 6: A/N

The screenshot shows a software window titled "74 Weather Warning/Watch Form". The interface includes a top menu bar with "Select ICAO", "Page 1", "Page 2", and "Page 3". Below this is a toolbar with buttons for "Transmit", "Print Form", "Print View", "Save", "Restore", "Clear", and "Acknowledged". The "Acknowledged" button is highlighted with a black arrow pointing to it from the text "Acknowledgement Report". The main form area contains several sections: "Type:" with "WARNING" and "WATCH" buttons; "Status:" with "ISSUE", "REISSUE", "VERIFY", and "CANCEL" buttons; "Location" and "Number" input fields; "Criteria" and "Valid Time" buttons; a large "Text" area with a vertical scrollbar; "Issued by" and "Date:" input fields; and a "View" section at the bottom. The "HUB: WX71" label is in the top right corner.

Acknowledgement
Report

Warning/Watch Form

TRAINING COURSE

UNIT 6: A/N

The screenshot displays the 'Weather Warning/Watch Form' interface. At the top, there are tabs for 'Select ICAO', 'Page 1', 'Page 2', and 'Page 3'. Below these are buttons for 'Transmit', 'Print Form', 'Print View', 'Save', 'Restore', 'Clear', and 'Acknowledged'. The main area is divided into two panes. The left pane, titled 'Select an Local Weather product.', contains a list of products: 'WARN 07-002 KQAM 28/1840Z', 'WARN 07-003 KQAM 28/1841Z C', 'WTCH 07-002 KQAM 28/1840Z', and 'WTCH 07-003 KQAM 28/1840Z'. The right pane, titled 'WARN 07-002 KQAM 28/1840Z', displays a detailed list of acknowledgments for various entities. The bottom of the interface includes buttons for 'Make Report', 'Cancel', 'Query', 'Refresh Report', and 'Print', along with a 'Status' field.

Weather Warning/Watch Form			
Select ICAO	Page 1	Page 2	Page 3
			HUB: WX71
Transmit	Print Form	Print View	Save
Restore	Clear	Acknowledged	
Select an Local Weather product.			
WARN 07-002 KQAM 28/1840Z		WARN 07-002 KQAM 28/1840Z	
WARN 07-003 KQAM 28/1841Z C		TOWER_0 NO ACK ***** SCOTT_VAN_HOR	
WTCH 07-002 KQAM 28/1840Z		LA01 NO ACK *****	
WTCH 07-003 KQAM 28/1840Z		LA02 NO ACK *****	
		TESTATC NO ACK ***** TEST_CONTACT	
		COMMAND_POST_0 ACKED@ 28/18422 CAPT_MINOR	
		LC01 NO ACK *****	
		TESTCMD NO ACK ***** TEST_CMD_CONT	
		BASE_POOL NO ACK ***** MR._SWIM	
		LO01 NO ACK *****	
		LO02 NO ACK *****	
		RAPCON_0 NO ACK ***** SRA_FLY	
		RAPCON_1 NO ACK ***** SSGT_RAP	
		LR02 NO ACK ***** LR02	
		TESTRAP NO ACK ***** TEST_CONTACT	
		Sof_Super ACKED@ 28/18432 Capt_Imapilot	
		LS01 NO ACK ***** LS01	
Make Report		Cancel	Query
		Refresh Report	Print
Status			

Warning/Watch Acknowledgement Display

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N Forms.**
 - Weather Advisory/Message
 - Added RAP Report Selection.
 - Select “Acknowledged” to Display RAP Report Window.
 - Allows Users to Generate, Display and Print Advisory RAP Reports.
 - Messages are Never Acknowledged.
 - All Other Functions are the Same as Discussed Earlier.

TRAINING COURSE

UNIT 6: A/N

The screenshot shows a software window titled "74 Weather Advisory/Message Form". It features a menu bar with "Select ICAO", "Page 1", and "Page 2". Below the menu bar is a toolbar with buttons for "Transmit", "Print Form", "Print View", "Save", "Restore", "Clear", and "Acknowledged". The "Acknowledged" button is highlighted with a black arrow pointing to it from the text "Acknowledgement Report". The form has several input fields: "Type:" with buttons for "ADVISORY" and "MESSAGE"; "Status:" with buttons for "ISSUE", "REISSUE", "VERIFY", and "CANCEL"; "Location" and "Number" fields; "Criteria" and "Valid Time" buttons; "Text" and "View" labels; "Issued by:" and "Date:" fields; and "Issued at:" and "Z" fields. A "Status" field is at the bottom left. The form is divided into sections by vertical lines, and there are scrollbars on the right side of the "Text" and "View" sections.

Acknowledgement
Report

Advisory/Message Form

TRAINING COURSE

UNIT 6: A/N

The screenshot displays a software window titled "74 Weather Advisory/Message Form". It features a menu bar with "Select ICAO", "Page 1", and "Page 2". Below the menu bar is a toolbar with buttons for "Transmit", "Print Form", "Print View", "Save", "Restore", "Clear", and "Acknowledged". The main area is divided into two panes. The left pane, titled "Select an Local Weather product.", contains two entries: "ADU 07-009 KQAM 28/1839Z C" and "ADU 07-010 KQAM 28/1838Z". The right pane displays a list of advisory messages for "ADU 07-010 KQAM 28/1838Z". Each message is preceded by a status indicator: "NO ACK" or "ACKED@". The messages include "TOWER_0", "LA01", "LA02", "TESTATC", "COMMAND_POST_0", "LC01", "TESTCMD", "BASE_POOL", "LO01", "LO02", "RAPCON_0", "RAPCON_1", "LR02", "TESTRAP", "Sof Super", and "LS01". The "ACKED@" status is followed by a timestamp and a name, such as "28/1842Z CAPT_MINOR" for "COMMAND_POST_0" and "28/1843Z Capt Imapilot" for "Sof Super". At the bottom of the window are buttons for "Make Report", "Cancel", "Query", "Refresh Report", and "Print". A "Status" field is located at the bottom left.

Message	Status	Timestamp	Name
TOWER_0	NO ACK		SCOTT_VAN_HOR
LA01	NO ACK		
LA02	NO ACK		
TESTATC	NO ACK		TEST_CONTACT
COMMAND_POST_0	ACKED@	28/1842Z	CAPT_MINOR
LC01	NO ACK		
TESTCMD	NO ACK		TEST_CMD_CONT
BASE_POOL	NO ACK		MR._SWIM
LO01	NO ACK		
LO02	NO ACK		
RAPCON_0	NO ACK		SRA_FLY
RAPCON_1	NO ACK		SSGT_RAP
LR02	NO ACK		LR02
TESTRAP	NO ACK		TEST_CONTACT
Sof Super	ACKED@	28/1843Z	Capt Imapilot
LS01	NO ACK		LS01

Advisory Acknowledgement Display

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N Forms.**
 - Operations.
 - Removed Monthly Summary Selection.
 - Obsolete With Email Transmit of Form 3813 Information to AFCCC.
 - Modified Synoptic Data Form for AFCCC Email Transmit.
 - Email Addresses Configure in RSM->**Local ICAO Administration->Site Data Information->Misc** for the Default Primary ICAO.
 - Select “Synoptic Data”.
 - SYNOPTIC AND SUMMARY DATA Panel Appears.
 - Defaults to Default ICAO and Today’s Data.

TRAINING COURSE

UNIT 6: A/N

74 SYNOPTIC AND SUMMARY DATA

KQAN HUB: wx74

Load Day Save Active Preview 3813 Synoptic Data Summary of the Day Active Runway and Equipment Change

Heading Information

Station: AMIS LINUX Station Elevation: 673
 Latitude: 3409N Longitude: 11849W
 Time Conversion: 8 Mag to True: 10
 Synoptic Date: 10 Mar 02

			No.	Precip Water Equiv	Snow Fall	Snow Depth
Midnight to:	0000 Z	(1600LST)		1 IN		IN
	0300 Z	(1900LST)	(1)	2 IN	T	IN 1 IN
	0600 Z	(2200LST)	(2)	3 IN	*5	IN 2 IN
			(3)			IN
			(4)			IN
						IN
						IN

Midnight LST

Status

Synoptic Data Page Display

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N Forms.**
 - Operations.
 - Synoptic Data Form.
 - Select “Load Day” to Enter/Display Previous Day’s Information.
 - Select “Synoptic Data” to Enter Precipitation, Snow Fall, and Snow Depth Information.
 - Select “Summary of the Day” to Display NTFS Derived SOD Information.
 - Users Can Override NTFS Generated Information by Entering Information in the Override Area.
 - Select “Active Runway and Equipment Changes” to Enter Runway Changes and Remarks.

TRAINING COURSE

UNIT 6: A/N

76 SYNOPTIC AND SUMMARY DATA

KQAL HUB: wx70

Load Day Save Active Preview 3813 Synoptic Data Summary of the Day Active Runway and Equipment Change

Heading Information

Station : NTFS FORMAL Station Elevation : 673
 Latitude : 3409N Longitude : 11849W
 Time Conversion : 8 Mag to True : 10
 Synoptic Date : 14 May 02

	Override		NTFS Derived	
Precip	7	IN	6	IN
Snow Fall	8	IN	E5	IN
Snow Depth	9	IN	1	IN
Max Temp		C	M	C
Min Temp		C	M	C
Peak Winds Speed		KT	M	KT
Direction		AT		Z
Direction		AT		Z

Status

Summary of the Day Page Display

TRAINING COURSE

UNIT 6: A/N

The screenshot displays the '74 SYNOPTIC AND SUMMARY DATA' window. The title bar includes standard window controls. Below the title bar, the station identifier 'KQAN' is on the left and 'HUB: wx74' is on the right. A row of buttons includes 'Load Day', 'Save Active', 'Preview 3813', 'Synoptic Data', 'Summary of the Day', and 'Active Runway and Equipment Change'. The 'Active Runway and Equipment Change' button is selected. The main content area is divided into two sections. The top section, 'Heading Information', contains fields for Station (AMIS LINUX), Station Elevation (673), Latitude (3409N), Longitude (11849W), Time Conversion (8), Mag to True (10), and Synoptic Date (10 Mar 02). The bottom section, 'Active Runway and Equipment Change', features a table with 'Time' and 'Runway' columns. The first row shows '1300' and 'Z' for Time, and '27' for Runway. The rest of the rows are empty. To the right of this table is a large text area labeled 'Remarks, Notes, and Miscellaneous Phenomena' containing the text 'NO REMARKS'.

Heading Information	
Station :	AMIS LINUX
Station Elevation :	673
Latitude :	3409N
Longitude :	11849W
Time Conversion :	8
Mag to True :	10
Synoptic Date :	10 Mar 02

Active Runway and Equipment Change	
Time	Runway
1300 Z	27

Remarks, Notes, and Miscellaneous Phenomena
NO REMARKS

Active Runway and Equipment Change Page Display

TRAINING COURSE

UNIT 6: A/N

- **Weather A/N Forms.**
 - Operations.
 - Synoptic Data Form.
 - Select “Save Active” to Save Data to the Server.
 - Select “Preview 3813” to Display the Form 3813 Preview.
 - Select “Send to AFCCC” to Email Form 3813 Data to AFCCC.
 - Select “Print” to Print a Copy of the 3813.
 - Select “Quit” to Close Preview 3813 Window.

TRAINING COURSE

UNIT 6: A/N

Send to AFCC

74-PREVIEW SYNOPSIS AND SUMMARY DATA															HUB: wxx				
KOAN		Quit		Print		Send to AFCCC		Page count: 1											
FEDERAL METEOROLOGICAL FORM 7613 SURFACE WEATHER OBSERVATION (REVISED) (METAR SPECIFIC FOR MILITARY USE)						LATITUDE 3420N		LONGITUDE 11543W		STATION ELEV 673		TIME CONV 8		MAG TO TRUE 10		DATE 10 Mar 02		STATION AND STATE AFMS LINCOLN	
TYPE (1)	TIME (UTC) (2)	DRCTN (3)	WIND		VARIABLE (5)	PREVAILING		VISIBILITY		PRESENT WEATHER				TEMP (7)	DEW- POINT (8)	ALSTO (9) (10) STN PRS (11)			
			SPEED (4)	MAX WIND (11)		LOCAL (12)	1000- LINE (13)	RUNWAY VISUAL RANGE (14)											
METAR	0155	240	10	35		0000	0000		(5)	FO				21	05	30.2 29.98			
SKY CONDITION (3) SCT100										TOTAL SKY COVER (2)				OBS INIT (15) RJV					
REMARKS (13) LONG LINE REMARKS AGAIN																			
SKY CONDITION (3)										TOTAL SKY COVER (2)				OBS INIT (15)					
REMARKS (13)																			
SKY CONDITION (3)										TOTAL SKY COVER (2)				OBS INIT (15)					
REMARKS (13)																			
SKY CONDITION (3)										TOTAL SKY COVER (2)				OBS INIT (15)					
REMARKS (13)																			
SKY CONDITION (3)										TOTAL SKY COVER (2)				OBS INIT (15)					
REMARKS (13)																			
SKY CONDITION (3)										TOTAL SKY COVER (2)				OBS INIT (15)					
REMARKS (13)																			
SYNOPTIC DATA						STATION PRESSURE COMPUTATION						SUMMARY OF THE DAY				ACTIVE RWY AND EQUIP CHANGE			
TIME (GMT) (1)	TIME (LST) (2)	NO (3)	PRECIP (4) (14)	SNOW FALL (5)	SNOW DEPTH (6)	TIME (GMT) (9)						24-HR MAX TEMP (16)	PRECIP (ACT) (17)	SNOW FALL (18)	SNOW DEPTH (19)	TIME (GMT) 1000 (20)	RWY NO (21)		
MM (LST)	MM (LST)					ATT TREND (10)						30							
0000	(0000LST)	1	T	1		OBSRVD SBR (11)						30	7	8	9				
0000	(0000LST)	(1)	2	T	1	TOTAL CORR (12)						30							
	(2200LST)	(2)	3	'6	2	SAT PRESS (13)						30							
		(3)				SAROGRAPH (14)						30							
		(4)				SAR CORR (15)						30	35		240	DISC			
MM (LST)	MM (LST)																		
(4) REMARKS, NOTES, AND MISCELLANEOUS PHENOMENA (all times GMT)																			
NO REMARKS																			

AF Form 7613, JUL 96

Form 3818 Preview

TRAINING COURSE

UNIT 6: A/N

- **A/N Misc.**

- Ability to Ingest WMO Formatted A/N Data via FTP.

- ASCII Text Strings Terminated With “=”.

- TAF HECA 212121Z 212121 08005KT CAVOK TEMPO
0608 VRB03KT 2000 BR SCT030 FM1000 03010KT
9999 SCT030 TEMPO 0006 VRB03KT 3000 BR=

- FTP Push or Pull Supported.

- Select **FTP->Ingest Authorizations** to Configure Username and Password for FTP Push.

- Select **FTP->Other Product Sources** to Configure for FTP Pull.

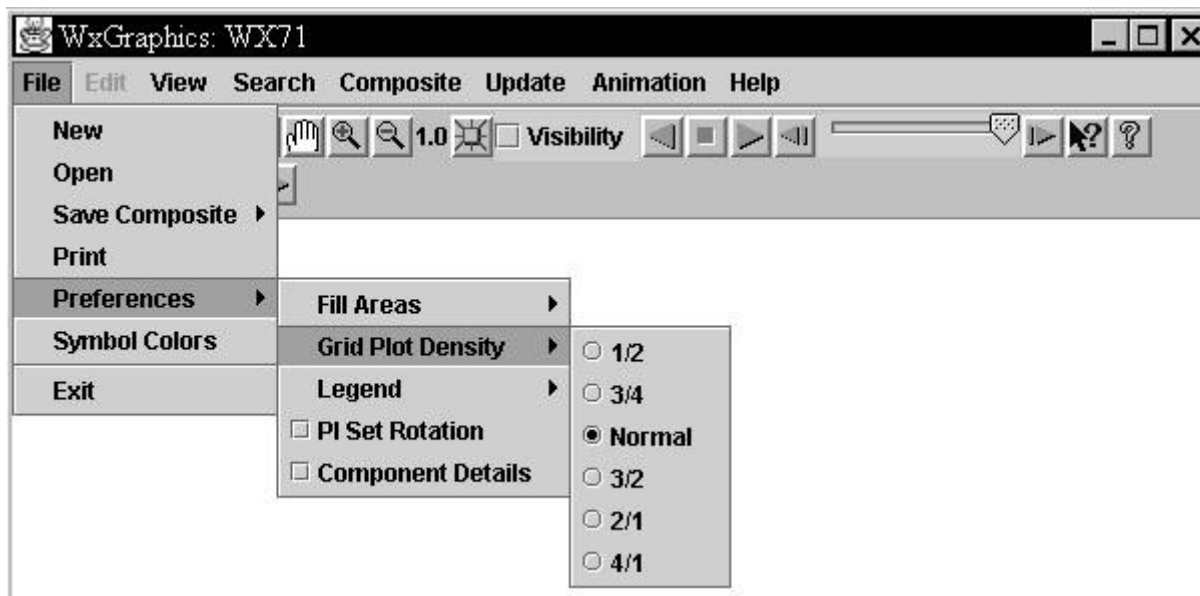
- Query and View Data as With Any Other A/N Product.

UNIT 7: WEATHER GRAPHICS

UNIT 7: WEATHER GRAPHICS

- **File->Preferences.**
 - Removed "Show Grid" and "Snap to Grid" Options.
 - Not Active in NTFS 2.0.
 - Added "Grid Plot Density" Option.
 - Allows Override of Displayed Grid Data Density Without Zooming.
 - "4/1" Indicates Display 4x Grid Points if Available.
 - "1/2" Indicates Display 1/2 Grid Points.

UNIT 7: WEATHER GRAPHICS



Grid Plot Density Menu

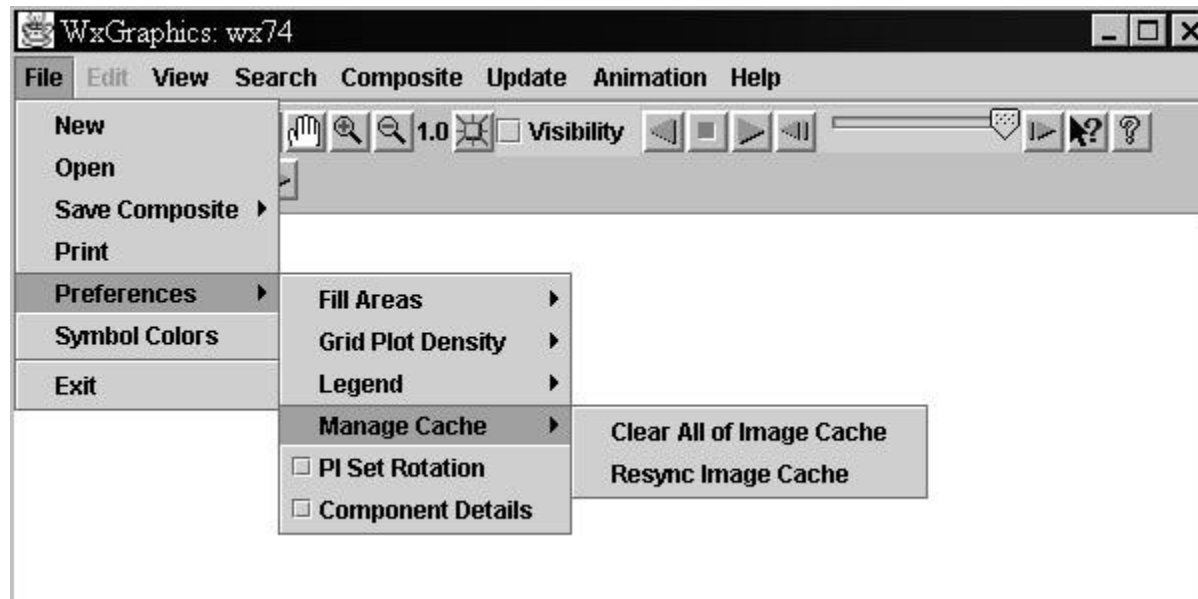
UNIT 7: WEATHER GRAPHICS

- **File->Preferences.**

- Added "Manage Cache" Option.

- Allows Clearing and Syncing of the Image/Background Cache.
 - Select "Clear All of Image Cache" to Remove Disk Cached Images and Backgrounds.
 - Ensure That No Images/Backgrounds are Displayed Prior to Selecting To "Continue".
 - Select "Resync Image Cache" to Sync-Up the Disk Cache and the Weather Graphics Cache.
 - Perform After a "Clear All of Image Cache".
 - Ensure That No Images/Backgrounds are Displayed Prior to Selecting To "Continue".
 - Use This Option Only When Directed by Maintenance Personnel.

UNIT 7: WEATHER GRAPHICS



Manage Cache Menu

UNIT 7: WEATHER GRAPHICS

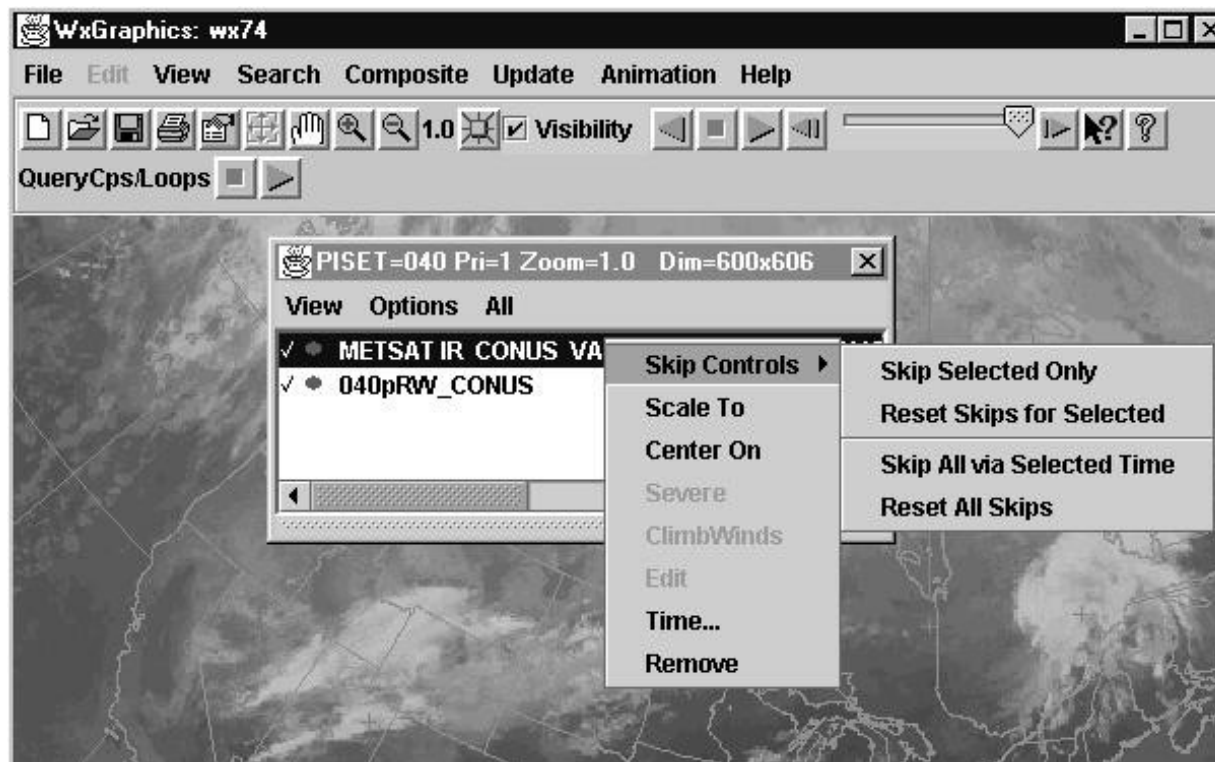
- **File->Layer List->Options.**
 - Added "Skip Controls" Option.
 - Allows Removing Product(s) From a Loop Sequence.
 - Can Also Use Right-Mouse Button Over Highlighted Product in Layer List to Select "Skip Controls".
 - Skip Settings are Not Saved in the Composite; the Skip Settings are Only Active During Display of the Loop.
 - With the Identified Product Displayed and Highlighted in Layer List, Select **Skip Controls->Skip Selected Only**.
 - May Need to Advance Loop Until Target Product is Visible.
 - Repeat For Any Other Product(s).
 - Select **Reset Skips for Selected** to Remove All Skips.

UNIT 7: WEATHER GRAPHICS

- **File->Layer List->Options.**
 - Added "Skip Controls" Option.
 - If Multiple Products Having the Same Time Are Displayed in the Same Loop "Slot" and Both Wish to Be Skipped, Select **Skip All via Selected Time**.
 - May Need to Advance Loop Until Target Products are Visible.
 - Repeat For Any Other Product(s).
 - Select **Reset All Skips** to Remove All Skips.

TRAINING COURSE

UNIT 7: WEATHER GRAPHICS



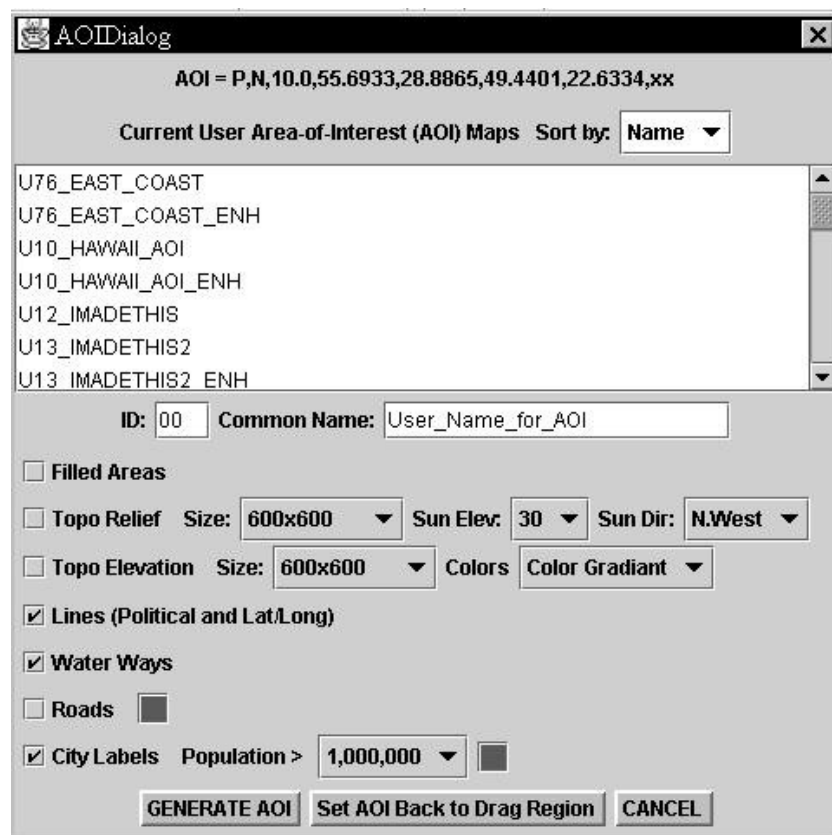
Layer List Skip Controls

UNIT 7: WEATHER GRAPHICS

- **View->Define Region for "Area of Interest(AOI)".**
 - Added New MMI for DTED Mapping.
 - AOI Backgrounds Sorted by Name or ID via Toggle Selection.
 - View->Define Region for Area of Interest (AOI).
 - Left Mouse Select at Center, Hold and Drag to Define Region, Release to Display AOI Dialog Panel (Same as NTFS 2.0).
 - Creates a "Background Composite" with Several Components.
 - Topographic Elevation Data.
 - Topographic Relief Data.
 - Water Ways.
 - Cities.
 - Roads.
 - Political Boundary's.

TRAINING COURSE

UNIT 7: WEATHER GRAPHICS



DTED Mapping Options

UNIT 7: WEATHER GRAPHICS

- **View->Define Region for "Area of Interest(AOI)".**
 - Background Creation Options.
 - Filled Areas. Produces Backgrounds With Brown Land/Blue Water.
 - Topo Relief.
 - Size. Select Resolution of Relief Background (Defaults to 600x600).
 - Sun Elevation. Select Elevation of Sun to Enhance Relief Affect (Defaults to 30 Degrees).
 - Sun Direction. Select Direction of Sun to Enhance Relief Affect (Defaults to Northwest).

UNIT 7: WEATHER GRAPHICS

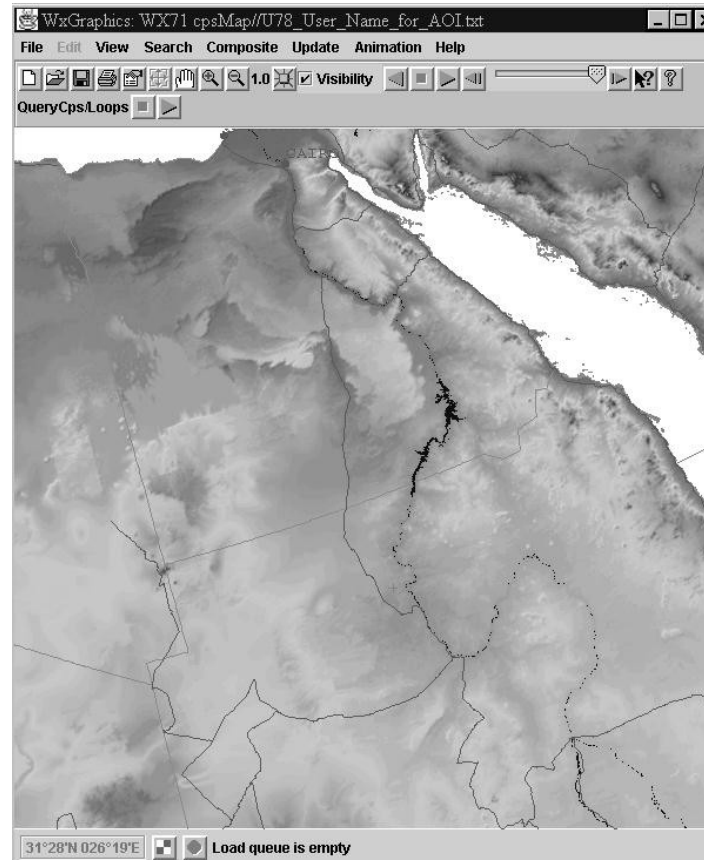
- **View->Define Region for "Area of Interest(AOI)".**
 - Background Creation Options.
 - Topo Elevation.
 - Size. Select Resolution of Topographic Background (Defaults to 600x600).
 - Colors. Select Color Curve for Defining Elevation (Defaults to Color Gradient).
 - Lines (Political and Lat/Long). Select if Political Boundary's and Lat/Long Lines Are to be Created (Selected by Default).

UNIT 7: WEATHER GRAPHICS

- **View->Define Region for "Area of Interest(AOI)".**
 - Background Creation Options.
 - Water Ways. Select if Inland Rivers and Lakes Are to be Created (Selected by Default).
 - Roads. Select if Roads Are to be Created.
 - Color. Select Color of Roads (Defaults to Cyan).
 - City Labels. Select if City Labels Are to be Created.
 - Population. Select Population Threshold Value When to Start Creating City Labels (Selected by Default and Defaults to 1,000,000).
 - Color. Select Color of City Labels (Defaults to Cyan).
 - Background Composite List Will Automatically Display When AOI Generation is Completed.

TRAINING COURSE

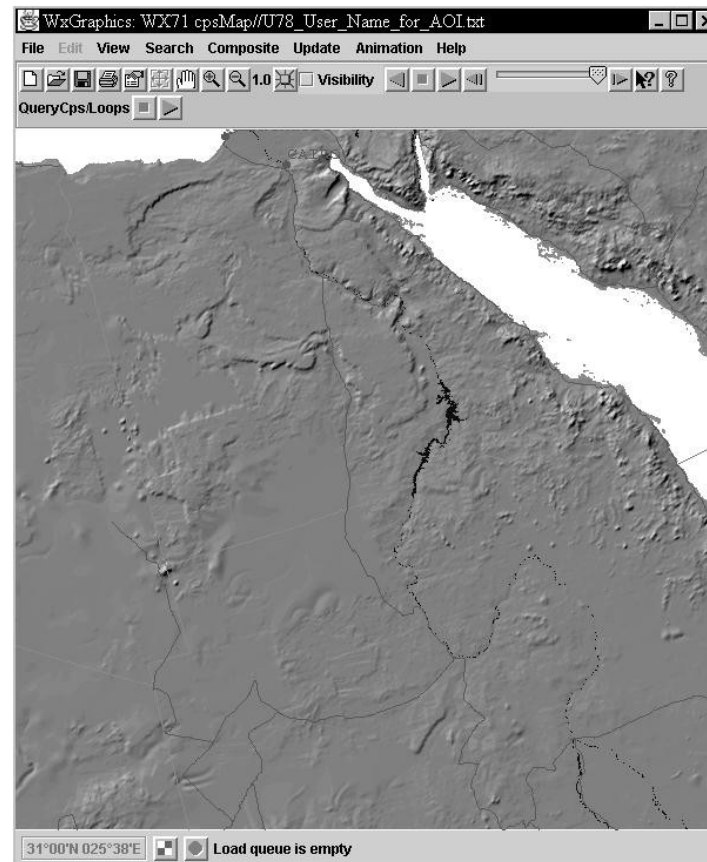
UNIT 7: WEATHER GRAPHICS



Background

TRAINING COURSE

UNIT 7: WEATHER GRAPHICS



Background Without Relief Data

UNIT 7: WEATHER GRAPHICS

- **File->Save Composite.**
 - Added "Background Composite" Option.
 - Saves Composite as a "Background".
- **Composite->Save Composite Definition.**
 - Added "Background Composite" Option.
 - Saves Composite as a "Background".

UNIT 7: WEATHER GRAPHICS



File->Save Composite Options

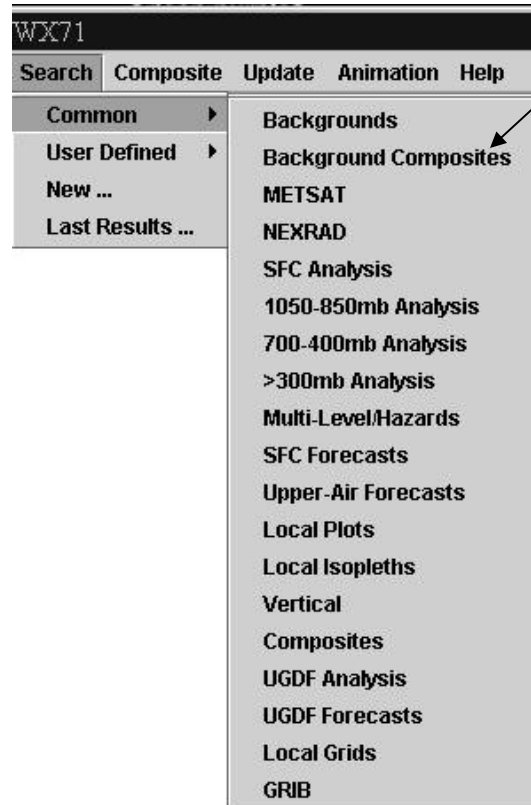
Composite->Save Composite Definition Options

UNIT 7: WEATHER GRAPHICS

- **Search->Common.**
 - Added "Background Composites" Option.
 - "Backgrounds" Sorted by Name or ID via Toggle Selection.

TRAINING COURSE

UNIT 7: WEATHER GRAPHICS



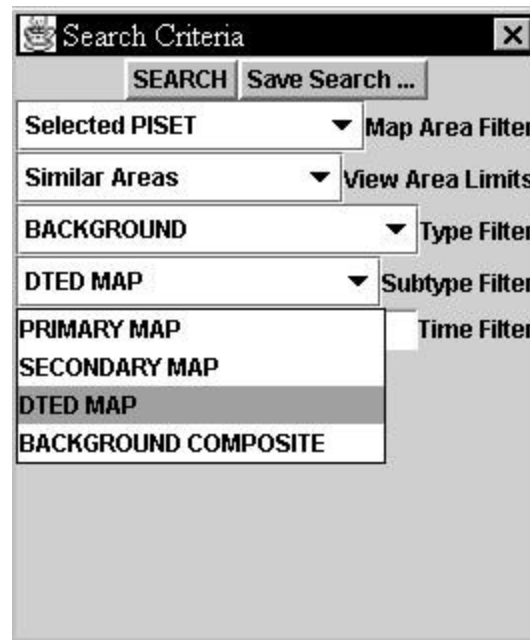
Background Composites Select

Common Background Composites Search

UNIT 7: WEATHER GRAPHICS

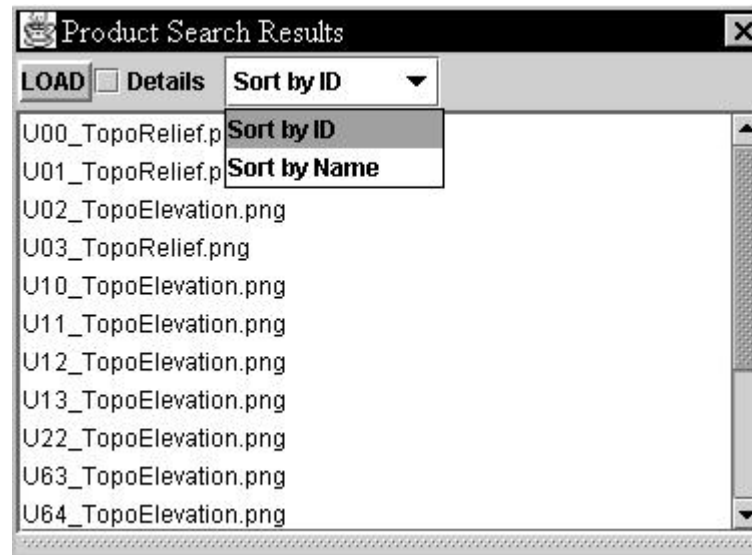
- **Search->New.**
 - Added Background Subtype Filters of "DTED MAP" and "BACKGROUND COMPOSITE".
 - DTED MAP Option Lists Relief and Elevation Components.
 - BACKGROUND COMPOSITE Option Lists Background Composite Definitions.
 - SECONDARY MAP Option Lists City, Lakes/Rivers, and Road Components.
 - All BACKGROUND Lists Sorted by Name or ID via Toggle Selection.

UNIT 7: WEATHER GRAPHICS



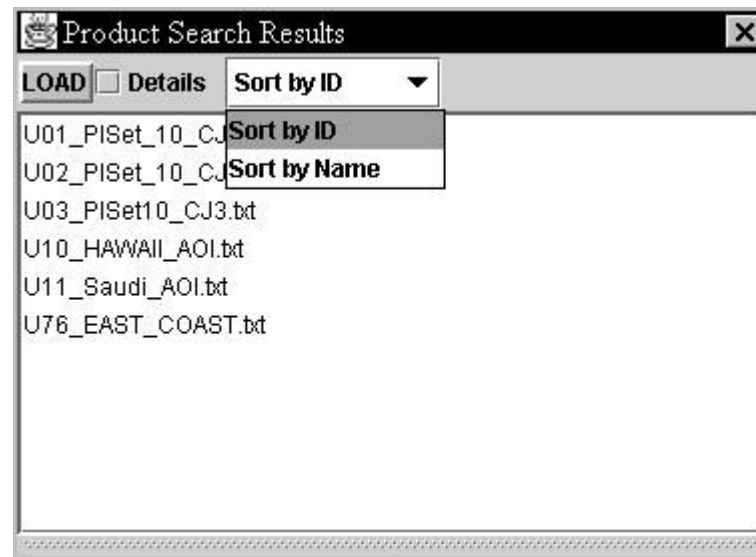
BACKGROUND Type Search Options

UNIT 7: WEATHER GRAPHICS



DTED Map Search List

UNIT 7: WEATHER GRAPHICS



Background Composite Search List

UNIT 7: WEATHER GRAPHICS



Secondary Map Search List

TRAINING COURSE

UNIT 7: WEATHER GRAPHICS



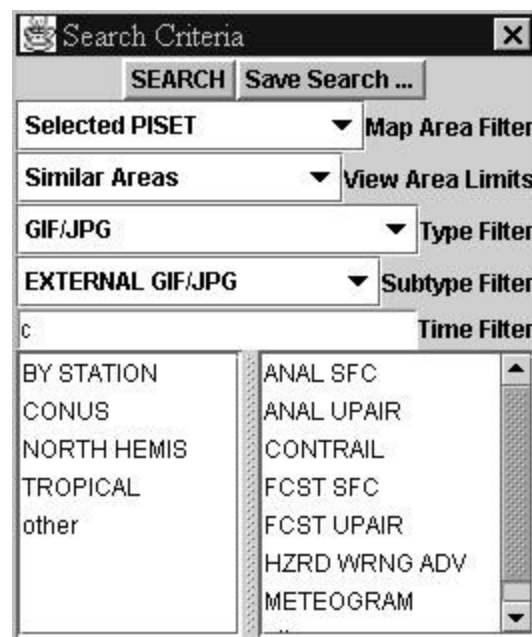
Primary Background Search List

UNIT 7: WEATHER GRAPHICS

- **Search->New.**
 - Added EXTERNAL GIF/JPG Location and Parameter Filters.
 - Uses LAH to Define Area and Sub-Area.
 - Similar to Product Viewer->Other Weather Products Filters.
 - Added Type Filter of "NITF" and Subtype Filter of "NITF IMAGES".
 - NITF Images Can be Treated the Same as Other Products.
 - Composites, etc.

TRAINING COURSE

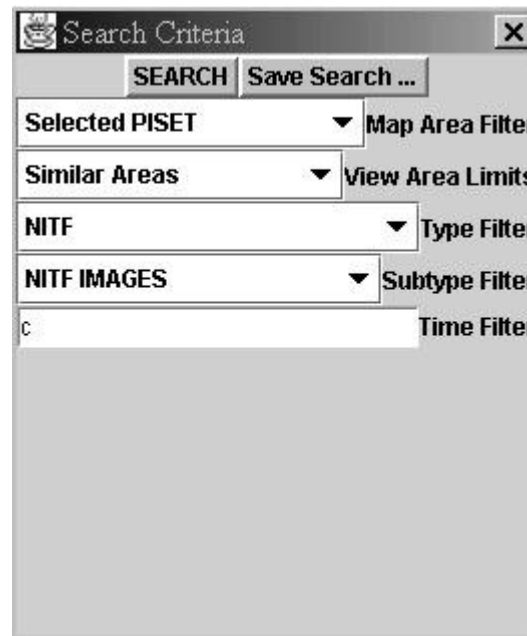
UNIT 7: WEATHER GRAPHICS



External GIF/JPG Search Options

TRAINING COURSE

UNIT 7: WEATHER GRAPHICS



NITF Search Option

UNIT 8: MET GENERATION

UNIT 8: MET GENERATION

- **Surface/UA FBD View/Edit Data
Elevation Label Changed to "m" from
"ft".**
- **Added Label to Severe and Climb
Winds Panel to Indicate Whether Data
is Original or Edited.**

TRAINING COURSE

UNIT 8: MET GENERATION

Horizontal Met Generation : WX71:82

File Record

Plot FBD Plot grid LGG Streamline Isopleth Barnes options View/Edit raw data Misc. Options

Time ICAO WMO LAT LON Priority Elevation

21:00 Jul 27 2001 KBRO 72250 25.9 -97.43 1 6 m

Parameters

Ship dir Ship spd SST

Pmsl 1013.9 TMP 34 DPT 23

ALT 29.95 PP 1 BC 168

DIR 120 SPD 12 GST 0

CIG VIS 8.6 CTA 150

R06 R24 S06

Wx1 Wx2 Wx3

PwX

Cloud Levels

Height Amount Type

4 149

3 149

2 149

1 150 131

Derived

RH 51 %

PA -7 ft

DA 2510 ft

Reload Save Changes Back to station list

Label Change

Surface View/Edit Panel

TRAINING COURSE

UNIT 8: MET GENERATION

74 Horizontal Met Generation :WX71:82

File Record

Plot FBD Plot grid LGG Streamline Isopleth Barnes options View/Edit raw data Misc. Options

Time 12:00 Jul 27 2001

Icao KBRD

Wmo 72250

Lat 25.9

Lon -97.43

Priority 2

Original Elevation 7 m

Trop

PPW

MxWnd

Prs	Dpd	Gph	Tmp	Dir	Spd
1013	1.1	10	27.3	150	7
1000	1.1	120	27.3	160	13
979.4	*	310	*	180	22
946.3	*	610	*	170	26
925	1.7	810	22.5	170	27
913.4	*	920	*	170	24
904	0.5	1010	21.3	*	*
884	4.6	1200	20.7	*	*
882.1	*	1220	*	170	23
864	0.7	1400	18.9	*	*
850	1.3	1540	17.7	170	22

Inputs

850 mb

250 mb 500 mb

500 mb 850 mb

Derived Parameters

RH = 092 % MXR = 13.95 g/kg

VWS = 005 m/s

Thk = 4350 dm

Reload Save Changes Back to station list ReOrder

Label Change

Upper Air View/Edit Panel

TRAINING COURSE

UNIT 8: MET GENERATION

Severe Weather Parameters

Station KBRO Time 2001 Nov25/1200 Elevation 7 m Original

LI	M	VTI	24.20	SSI	10.59	MLI	M	CTI	7.20					
KI	11.70	TI		M	TTI	31.40	KD	3.42	+BE	M				
ALT1	203.3	ALT2	-65.7	ALT3	230.0	ALT4	302.4	ALT5	58.6					
SWEAT 37.0 kts PPW 0.660 in RIM c GUSTS 72.1 kts HAILM in CT 45.0 c														
LCL	M	mb	CCL	M	mb	LFC	M	mb	TRDP	120.0	mb	MW1	M	dm
LCL	M	m	CCL	M	m	LFC	M	m	WBZ	3277	m	EL	11153	m
Freezing Lvl														
Inversion														
Shear Layer(s)														
Intensity														
4510														
580														
680														
1930														
2060														
Icing														
Cloud Layers														
Thickness														
Base Top Intensity Type														
NONE														
Base Top														
NONE														
1000-500														
5710														
1000-700														
3020														
1000-850														
1400														
850-500														
4310														
850-700														
1620														
700-500														
2690														
500-300														
3740														

Heights Are in

Climb Wind Parameters

Station KBRO Time 2001 Nov25/1200 Elevation 22.96 feet Edited

Heights Are Entered as FEET MSL

Base	Top	Direction	Speed
0	40000	238	14.4
M	M	M	M
M	M	M	M

Data Type Indicators

Severe and Climb Wind Panel

UNIT 9: LWNS/LOC

UNIT 9: LWNS/LOC

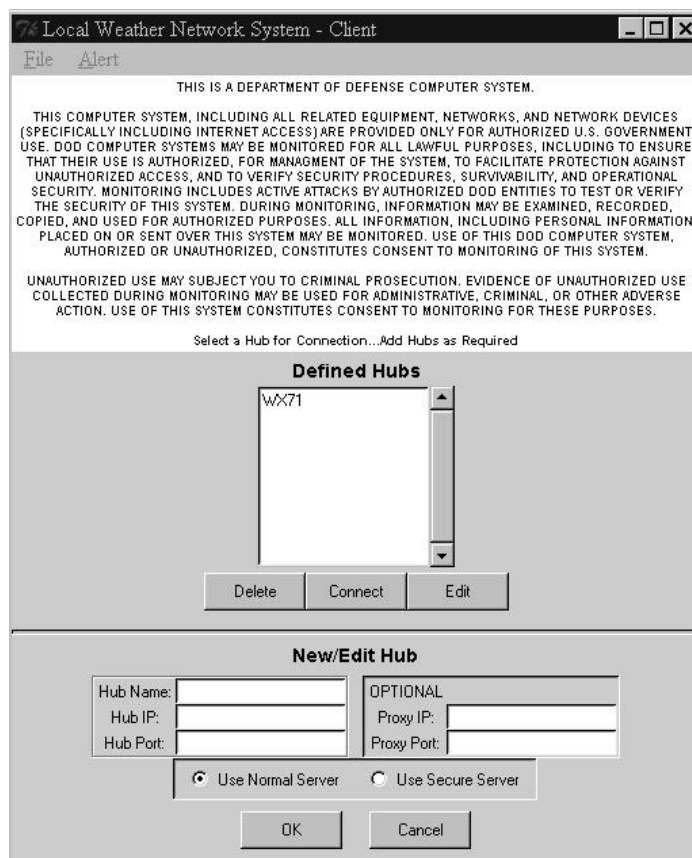
- **Replicates Same Functionality as Legacy FCF/FO.**
 - Added Capability:
 - User Defined Alert Sounds/Colors.
 - User Defined Product Catalog (A/N and Graphic).
 - Ability to Display Other A/N Products.
 - Ability to Display Graphic Products and Loops.
 - Receipt Acknowledgement of Warnings, Watches, and Advisories.
 - LWDS-Type Display Format for Local ICAO (i.e., Split-Screen).
 - Increased Displayed Alternate ICAOs to 20.

UNIT 9: LWNS/LOC

- **Login Screen Identical to NTFS.**
- **Once Connected, and the Session Has Been Accepted by NTFS, the Position Selection Panel Appears.**
 - Select the Position, or Select “None”, for Identification.
 - Only a Single Position and User is Allowed to be Active at Any Given Time.
 - Last Login Wins...Other Login Will be Terminated.
- **Once Position is Selected, the LOC Main Window is Displayed.**
 - If Web Server is Restarted, Must Re-Login.

TRAINING COURSE

UNIT 9: LWNS/LOC



LWNS/LOC Login Screen

TRAINING COURSE

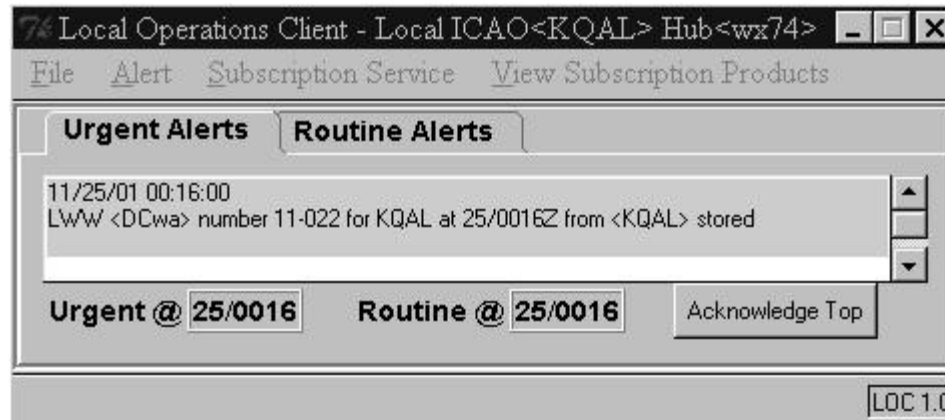
UNIT 9: LWNS/LOC



Position Selection Menu

TRAINING COURSE

UNIT 9: LWNS/LOC



LWNS/LOC Main Window

UNIT 9: LWNS/LOC

- **LOC Menu.**
 - Select **File->Change Password** to Change the User Password When Required.
 - Select **File->Exit** to Exit the LOC Application.

TRAINING COURSE

UNIT 9: LWNS/LOC

Password Change

LWNS/LOC Password Modification

Name: svh

Old Password: xxxxxxx

New Password:

Repeat Password:

NOTE: When deciding on a new password

- A - USING YOUR OLD PASSWORD IS NOT ALLOWED!
- B - Password must be 8 characters long
- C - Password must include at least one A-Z
- D - Password must include at least one 0-9
- E - Password must include at least one of ~!@#%&^*_!,:..

OK Cancel

LWNS/LOC Change Password

UNIT 9: LWNS/LOC

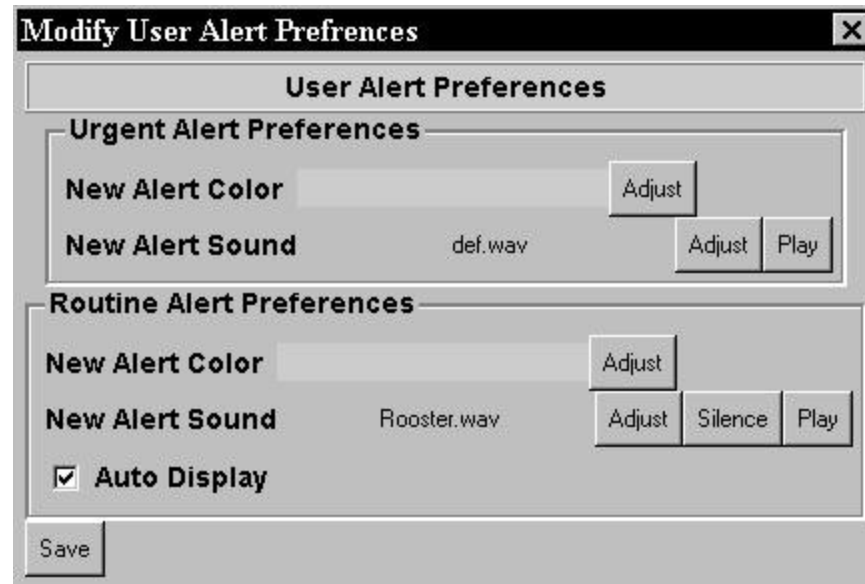
- **LOC Menu.**
 - Select Alert->Preferences to Modify the Alert Sounds and Colors.
 - Colors. Select **Adjust** to Display Windows Color Palette.
 - Select Desired Color, and Select **OK**.
 - Sounds. Select **Adjust** to Display List of Available .wav Files.
 - Add Personal .wav Files in c:\Program Files\LWNS\sounds.
 - Highlight Desired Sound, and Select **Open**.
 - Select **Play** to Test/Listen.
 - Select **Silence** to Turn-Off Routine Alerts.

UNIT 9: LWNS/LOC

- **LOC Menu.**
 - Select Alert->Preferences to Modify the Alert Sounds and Colors.
 - Toggle Auto Display to Automatically De-iconify LOC Window When Routine Alert Arrives.
 - LOC Will Always Automatically De-Iconify When Urgent Alert is Retrieved.
 - Select **Save** to Save Preferences to Server for Each Username.

TRAINING COURSE

UNIT 9: LWNS/LOC



LWNS/LOC Alert Preferences

UNIT 9: LWNS/LOC

- **Alert Options Panel.**
 - Alerts Will Only Display Since Login.
 - No Historical Alerts Are Retrieved.
 - Place Cursor in Alert Window, Select Right Mouse Button, Alert Options Panel is Display.
 - To Delete Alerts, Select **Mark/Mark All** to Select Alert(s), Then Select **Acknowledge Top** to Remove Alert(s).
 - Select **UnMark** to Remove Delete Mark.

TRAINING COURSE

UNIT 9: LWNS/LOC

Cut
Print
View
Mark
Mark All
UnMark

LWNS/LOC Alert Options

UNIT 9: LWNS/LOC

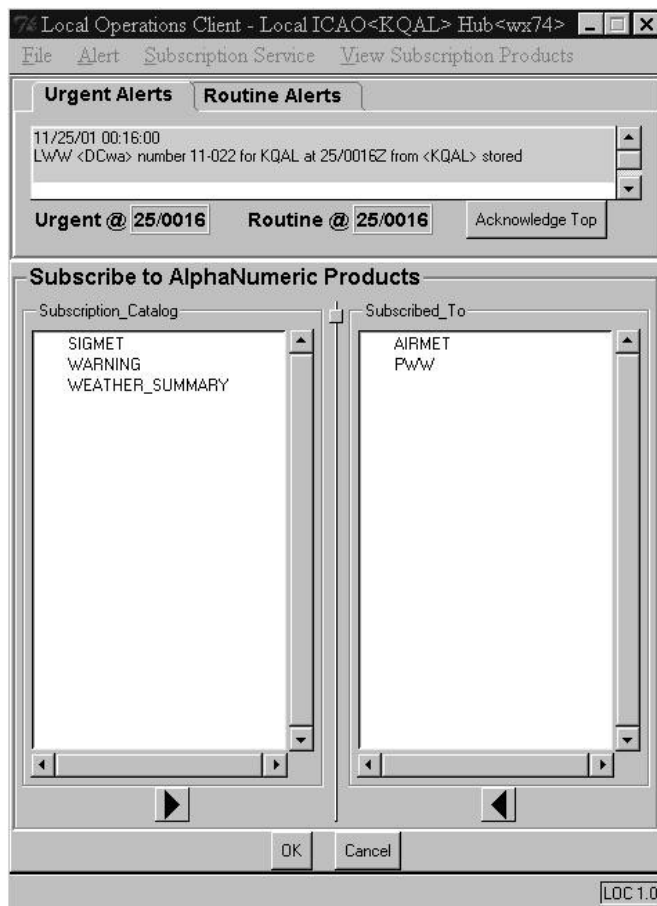
- **Alert Options Panel.**
 - For Urgent Alerts (i.e., Warnings, Watches, and Advisories), Alert Option Panel is Not Needed.
 - Alert Will Sound Continuously Until Acknowledged.
 - Select **Acknowledge Top** to Remove Urgent Alert and Silence Alert.
 - Only One Urgent Alert Can be Removed at a Time.
 - Receipt Acknowledgement is Automatically Generated.
 - For Routine Alerts (i.e., FCF Dataset Arrivals), Alert Will Occur Only Once When Arrived.

UNIT 9: LWNS/LOC

- **Alphanumeric Subscription Service.**
 - Subscription Service->Alpha Numeric.
 - Lists Available Selections Configured by System Manager.
 - LWNS Subscription Service -> Local LOC Products.
 - To Subscribe to a A/N Product (Move Product to “Subscribed To” Column).
 - Double-Click on Product in “Subscription Catalog” Column.
 - Highlight, and Select Move-Right Arrow.
 - To Unsubscribe to a A/N Product (Move Product to “Subscription Catalog” Column).
 - Double-Click on Product in “Subscribed To” Column.
 - Highlight, and Select Move-Left Arrow.

TRAINING COURSE

UNIT 9: LWNS/LOC



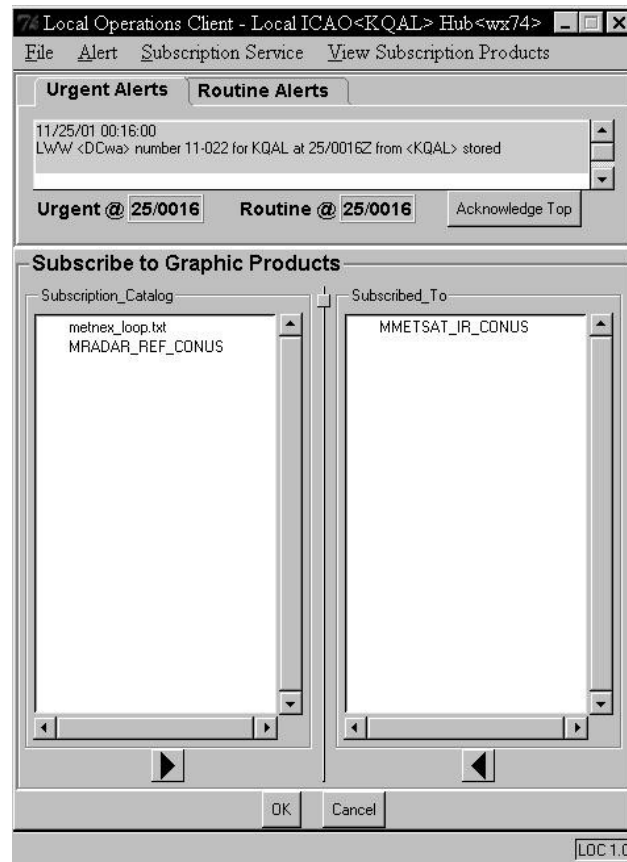
A/N Subscription List

UNIT 9: LWNS/LOC

- **Graphic Subscription Service.**
 - Subscription Service->Graphics.
 - Lists Available Selections Configured by System Manager.
 - LWNS Subscription Service -> Local LOC Products
 - To Subscribe to a Graphic Product (Move Product to “Subscribed To” Column).
 - Double-Click on Product in “Subscription Catalog” Column.
 - Highlight, and Select Move-Right Arrow.
 - To Unsubscribe to a Graphic Product (Move Product to “Subscription Catalog” Column).
 - Double-Click on Product in “Subscribed To” Column.
 - Highlight, and Select Move-Left Arrow.

TRAINING COURSE

UNIT 9: LWNS/LOC



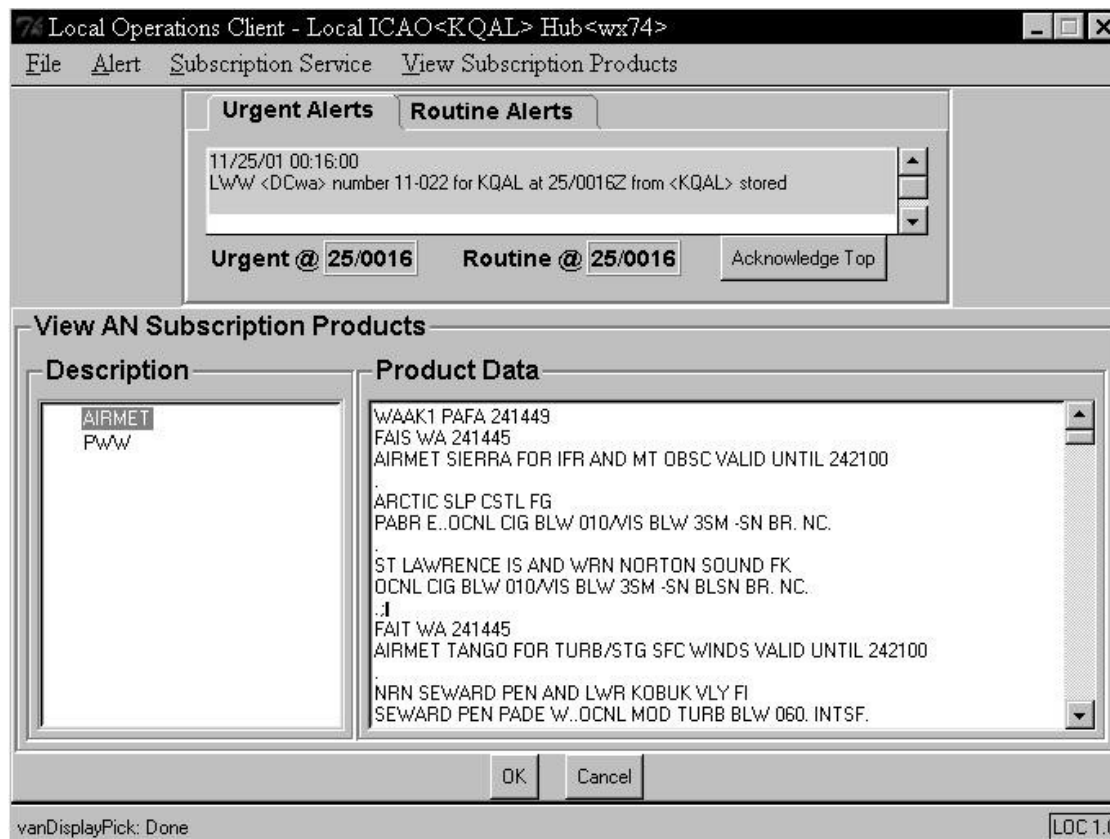
Graphic Subscription List

UNIT 9: LWNS/LOC

- **Viewing Alphanumeric Products.**
 - Select View Subscription Products->AN Subscription.
 - Subscribed A/N Products are Listed.
 - Select Product Description, and Most Current Product is Displayed.
 - LOC Queries Every 60 Seconds for Updated A/N Products.

TRAINING COURSE

UNIT 9: LWNS/LOC



A/N Products Display

TRAINING COURSE

UNIT 9: LWNS/LOC

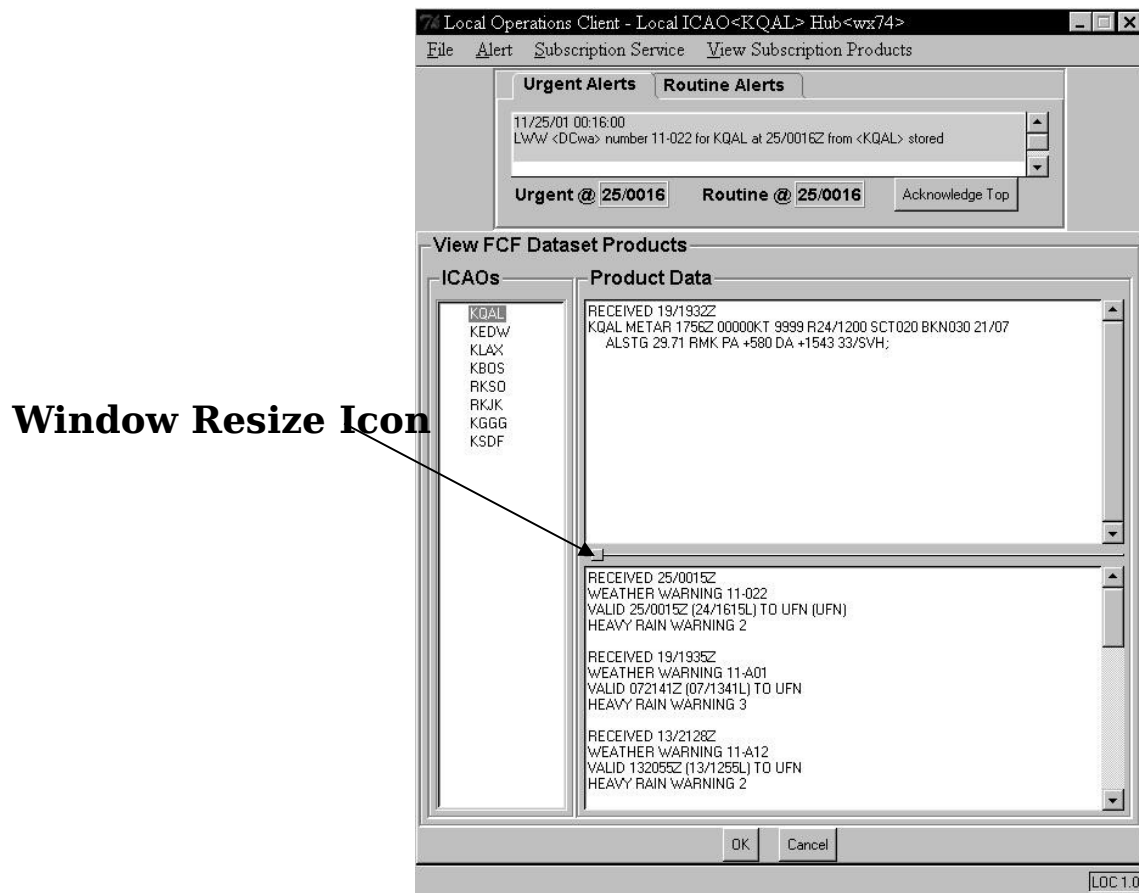
- **Viewing Alphanumeric Products.**
 - Select View Subscription Products->FCF Subscription.
 - Selected ICAOs are Listed.
 - Configured by System Manager.
 - LWNS Subscription Service -> Active Positions.
 - Select ICAO, and FCF Dataset is Displayed.
 - First ICAO is Default Local ICAO.
 - OBS and TAFs in Upper Window
 - Warning/Watches, Advisories/Messages, PIREPs, AIRADs, and Unformatted Messages, in That Order, in Lower Window.

UNIT 9: LWNS/LOC

- **Viewing Alphanumeric Products.**
 - Select View Subscription Products->FCF Subscription.
 - Alternate ICAO's Displayed in Order Configured.
 - OBS and TAFs in Single Window.
 - Windows Can Be Resized Vertically by Selecting the Window Resize Icon and Dragging Up or Down.
 - LOC Queries Every 60 Seconds for Updated A/N Products.

TRAINING COURSE

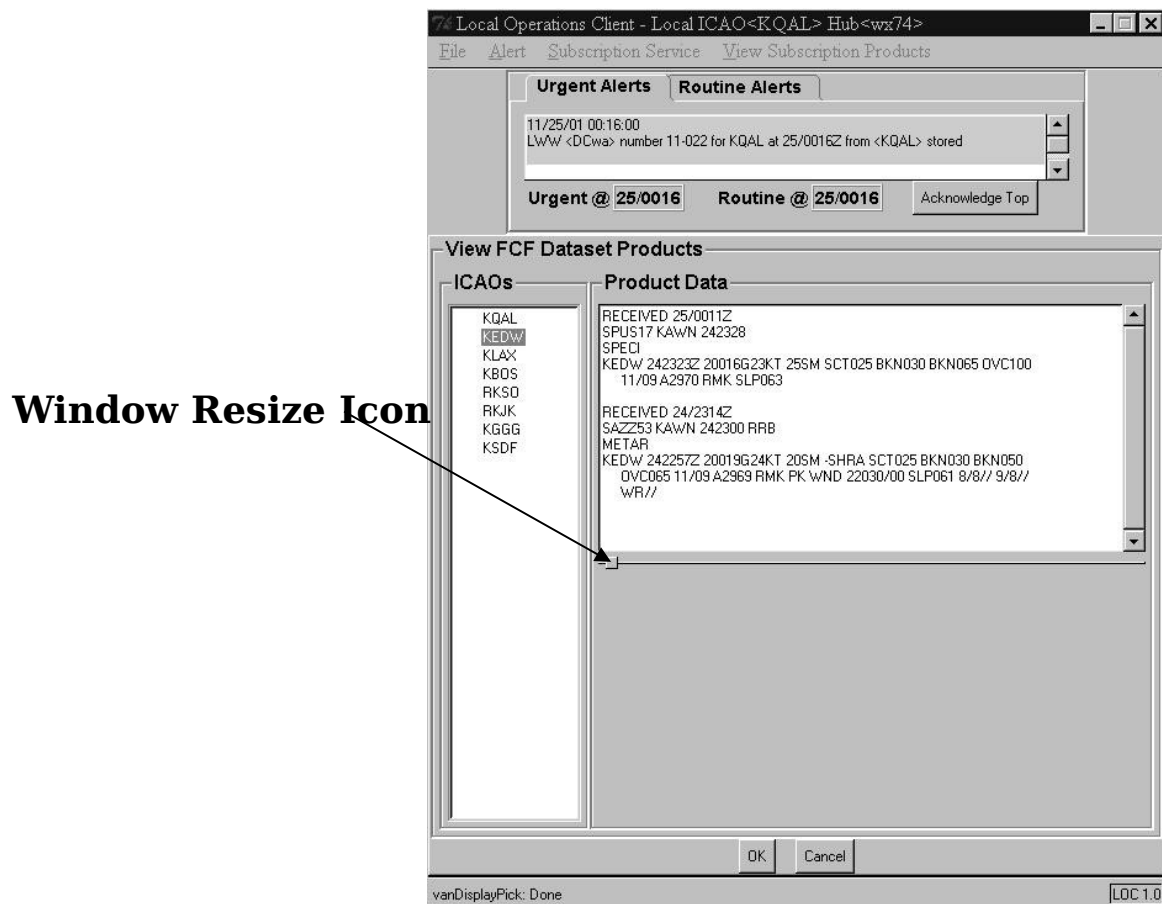
UNIT 9: LWNS/LOC



Primary ICAO FCF Dataset

TRAINING COURSE

UNIT 9: LWNS/LOC



Alternate ICAO FCF Dataset

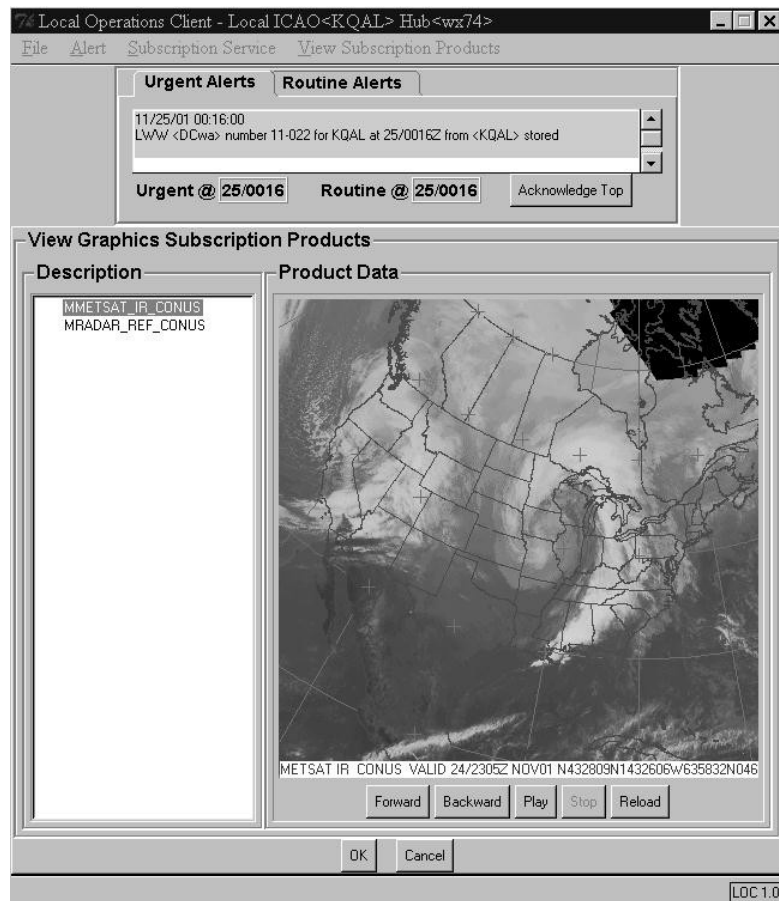
TRAINING COURSE

UNIT 9: LWNS/LOC

- **Viewing Graphic Products.**
 - Select View Subscription Services->Graphics.
 - Subscribed Graphic Products are Listed.
 - Select Product Description, and Most Current Product is Displayed.
 - Select **Forward**, **Backward**, **Stop**, or **Play** to Control Looping.
 - Select **Reload** to Query for Updated Products.

TRAINING COURSE

UNIT 9: LWNS/LOC



Graphic Display Panel

UNIT 10: LWNS/ATC

UNIT 10: LWNS/ATC

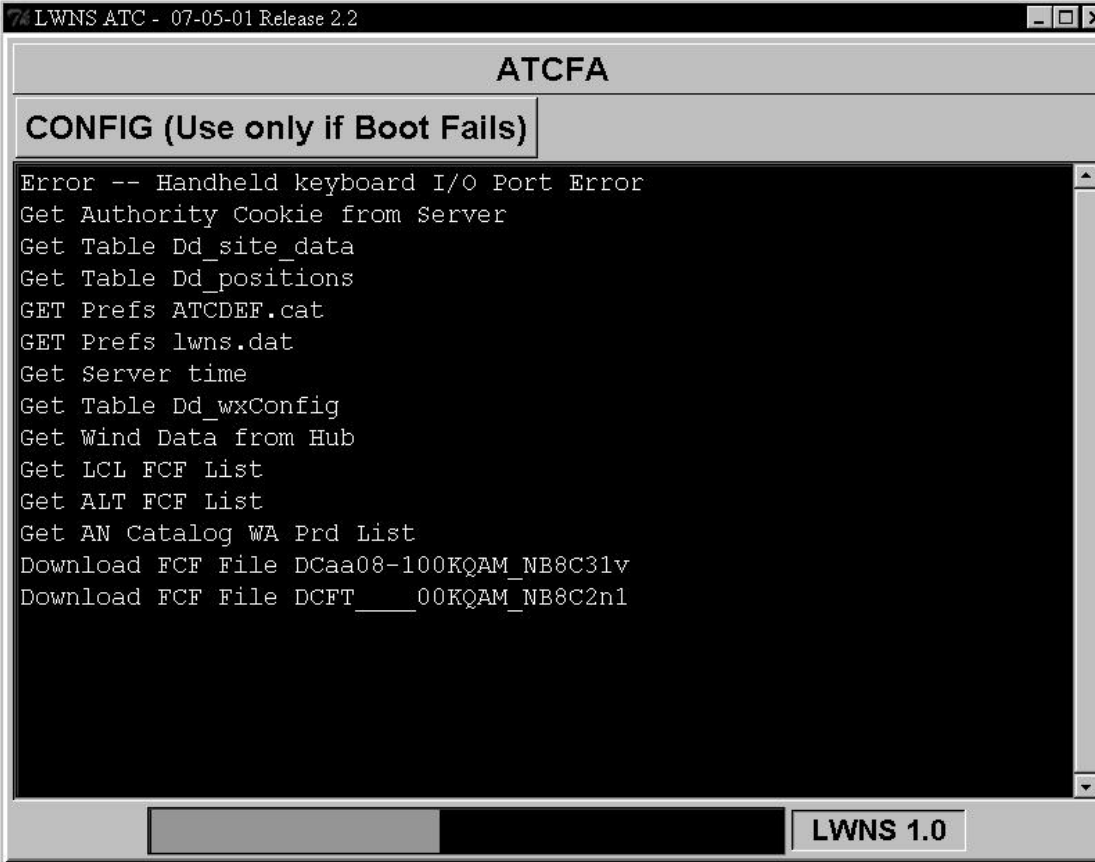
- **Replicates Same Functionality as Legacy FCF/ATC.**
 - Added Capability:
 - Ability to Display External OBS Converted to Local Format for the Local Default ICAO (i.e., FAA Type).
 - User Defined Product Catalog (A/N and Graphic).
 - Ability to Display Other A/N Products.
 - Ability to Display Graphic Products and Loops.
 - Up to 3 Selections Supported.
 - Ability to Display AOS Wind Data Graphically.
 - Receipt Acknowledgement of Warnings, Watches, and Advisories.

UNIT 10: LWNS/ATC

- **LWNS/ATC Will Automatically Initiate When Client PC is Rebooted.**
- **Once Connected, and the Session Has Been Accepted by NTFS, the LWNS/ATC Window Appears.**
 - No Manual Login is Required by User.
 - Login and Authorization is by Encrypted “Certificate” to the Configured NTFS Server.
 - Only a Single Position is Allowed to be Active at Any Given Time.
 - Last Login Wins...Other Login Will be Terminated.

TRAINING COURSE

UNIT 10: LWNS/ATC



```
LWNS ATC - 07-05-01 Release 2.2
ATCFA
CONFIG (Use only if Boot Fails)
Error -- Handheld keyboard I/O Port Error
Get Authority Cookie from Server
Get Table Dd_site_data
Get Table Dd_positions
GET Prefs ATCDEF.cat
GET Prefs lwns.dat
Get Server time
Get Table Dd_wxConfig
Get Wind Data from Hub
Get LCL FCF List
Get ALT FCF List
Get AN Catalog WA Prd List
Download FCF File DCaa08-100KQAM_NB8C31v
Download FCF File DCFT____00KQAM_NB8C2n1
LWNS 1.0
```

LWNS/ATC Boot-Up Display

TRAINING COURSE

UNIT 10: LWNS/ATC

74 LWNS ATC - 07-05-01 Release 2.2 -- COMM UP --

LWW <DCwa> number 07-005 for KQAM at 29/0355Z f...

ACK-U Clear-R **KQAM** KELP KLAX KBOS HESN KBWI **LA00**

OBS/AA TAF WA PIREP WW AN Wind S1 S2 S3

RECEIVED 29/0354Z

KQAM **SPECT** **0300Z** **VRB03KT** **4800** R24/1200 **FG** **OVC030**

44/39 **ALSTG** **29.80** RMK **PA +712** **DA +21** **54/CJM**

RECEIVED 29/0315Z

NAIRAD 07-200

THIS IS AN AIRAD

RECEIVED 29/0313Z

ALSTG: 29.80 PA: +712 TMP: 44 DA: +21

THIS IS FOR UP TO 6 LINES OF ATC INFORMATION

Position ID

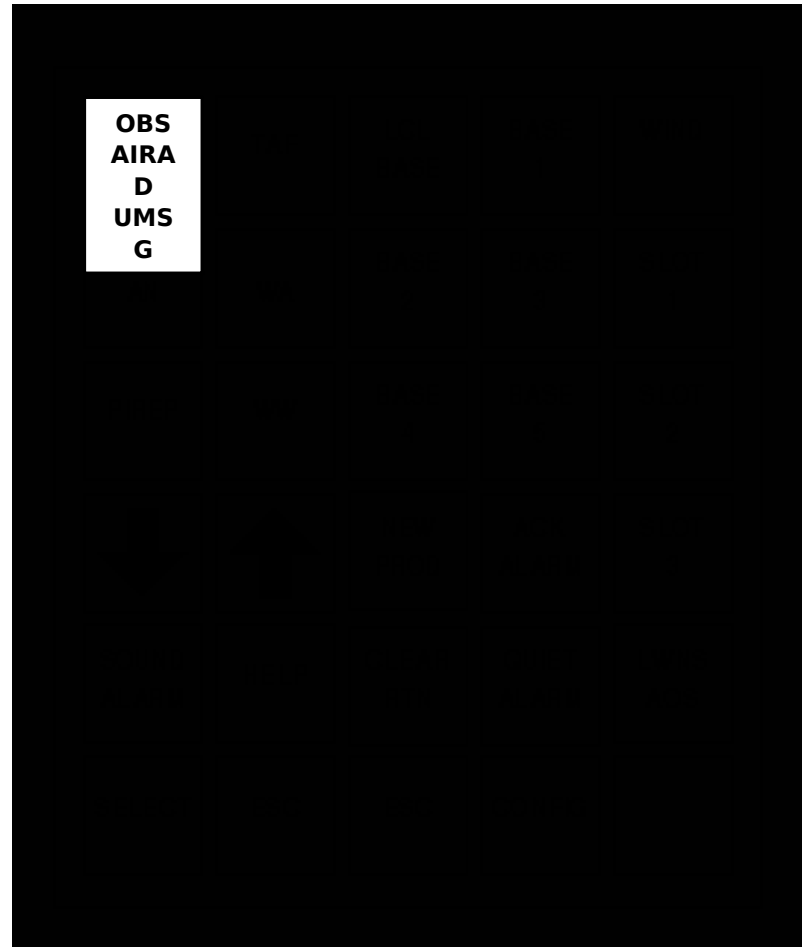
LWNS/ATC Main Display

UNIT 10: LWNS/ATC

- **GUI Interface.**
 - All Interfacing is Performed From a Back-Lit Hand-Held KeyPad.
 - Optional Mouse is Also Available.
 - One LWNS/ATC per Base Will Have a Keyboard Attached to Input the ATC Information Messages.

TRAINING COURSE

UNIT 10: LWNS/ATC



LWNS/ATC KeyPad Layout

TRAINING COURSE

UNIT 10: LWNS/ATC

- **Alerts.**
 - Urgent Alerts Will Sound Continuously Until Acknowledged.
 - **ACK-U** Will Flash When Urgent Alerts are Present.
 - Select **ACK ALARM** to Remove Urgent Alert and Silence Alert.
 - Only One Urgent Alert Can be Removed at a Time.
 - RAP is Automatically Generated.
 - Routine Alerts Will Sound Once When Arrived.
 - **Clear-R** Will Flash When Routine Alerts are Present.
 - Select **CLEAR RTN** to Remove Routine Alerts.

TRAINING COURSE

UNIT 10: LWNS/ATC

Alert Display Area

Urgent/Routine Alert
Indicators

74 LWNS ATC - 07-05-01 Release 2.2 -- COMM UP --

LWW<DCwa> number 07-005 for KQAM at 29/0355Z f...

ACK-U Clear-R KQAM KELP KLAX KBOS HESN KBWI LA00

OBS/AA TAF WA PIREP WW AN Wind S1 S2 S3

RECEIVED 29/0354Z

KQAM SPECI 0300Z VRB03KT 4800 R24/1200 FG OVC030

44/39 ALSTG 29.80 RMK PA +712 DA +21 54/CJM

RECEIVED 29/0315Z

NAIRAD 07-200

THIS IS AN AIRAD

RECEIVED 29/0313Z

ALSTG: 29.80 PA: +712 TMP: 44 DA: +21

THIS IS FOR UP TO 6 LINES OF ATC INFORMATION

LWNS/ATC Main Display

UNIT 10: LWNS/ATC

- **Alerts.**
 - Alerts Will Only Display Since Login.
 - No Historical Alerts Are Retrieved.
 - Select **SOUND ALARM** to Test Alert.
 - Select **QUIET ALARM** to Silence Alert.

UNIT 10: LWNS/ATC

- **Viewing Local ICAO FCF Dataset Products.**
 - Select **LCL BASE** for Local Default ICAO.
 - Configured by System Manager.
 - LWNS Subscription Service -> Active Positions.
 - First ICAO Listed is Default Local ICAO.
 - Select **OBS/AIRAD/UMSG** to Display Latest Observations, AIRAD's and Unformatted Message.
 - Displayed as "OBS/AA" on ATC Window.
 - Displays Merged Observation.
 - Latest AIRAD Displayed First.
 - Latest Unformatted Message Displayed Last.
 - Select **TAF** to Display Latest TAF.
 - Displayed as "TAF" on ATC Window.

TRAINING COURSE

UNIT 10: LWNS/ATC

ICAO List

Product Type List

ATC Obs Data

74 LWNS ATC - 07-05-01 Release 2.2 -- COMM UP --

LWW <DCwa> number 07-005 for KQAM at 29/0355Z f...

ACK-U Clear-R KQAM KLP KLAX KBOS HESN KBWI LA00

OBS/AA TAF WA PIREP WW AN Wind S1 S2 S3

RECEIVED 29/0354Z

KQAM SPECI 0300Z VRB03KT 4800 R24/1200 FG OVC030

44/39 ALSTG 29.80 RMK PA +712 DA +21 54/CJM

RECEIVED 29/0315Z

NAIRAD 07-200

THIS IS AN AIRAD

RECEIVED 29/0313Z



ALSTG: 29.80 PA: +712 TMP: 44 DA: +21

THIS IS FOR UP TO 6 LINES OF ATC INFORMATION

LWNS/ATC Main Display

TRAINING COURSE

UNIT 10: LWNS/ATC

- **Viewing Local ICAO FCF Dataset Products.**
 - Select **WA** to Display Weather Advisories.
 - Displayed as “WA” on ATC Window.
 - Latest Advisory Displayed First.
 - Always Defaults to Default Local ICAO.
 - Weather Messages are Not Displayed on ATC.
 - Select **PIREP** to Display PIREPs.
 - Displayed as “PIREP” on ATC Window.
 - Latest PIREP Displayed First.
 - Always Defaults to Default Local ICAO.
 - Select  or  Scroll Through Displayed Product(s).

UNIT 10: LWNS/ATC

- **Viewing Local ICAO FCF Dataset Products.**
 - Select **WW** to Display Weather Warnings and Watches.
 - Displayed as “WW” on ATC Window.
 - Always Defaults to Default Local ICAO.
 - Latest Warning or Watch Displayed First.
 - ATC Queries Every 60 Seconds for Updated A/N Products.

UNIT 10: LWNS/ATC

- **Viewing Local ICAO FCF Dataset Products.**
 - Merged Observations.
 - METAR Clears Display and Starts the Merge Over Again.
 - SPECI's, LOCAL's, and AWO's Merge With Baseline METAR, With All Differences Highlighted Between Each Subsequent Observation.
 - Use "*" in the Observation Form to Remove an Element.
 - FAA Locations May Display Incorrect Observation Data.
 - Observation is Converted to Local Format.
 - No Method to Remove an Element.

UNIT 10: LWNS/ATC

- **Viewing Local ICAO FCF Dataset Products.**
 - ATC Obs Data Line.
 - Always Displays Current/Merged Observation ALSTG, PA, TMP, and DA Regardless of Data Selected.
 - DA Display is Configured by System Manager.
 - Local ICAO Administration->Site Data Information

TRAINING COURSE

UNIT 10: LWNS/ATC

ICAO List

Product Type List

ATC Obs Data

74 LWNS ATC - 07-05-01 Release 2.2 -- COMM UP --

LWW <DCwa> number 07-005 for KQAM at 29/0355Z f...

ACK-U Clear-R KQAM KLP KLAX KBOS HESN KBWI LA00

OBS/AA TAF WA PIREP WW AN Wind S1 S2 S3

RECEIVED 29/0354Z

KQAM SPECI 0300Z VRB03KT 4800 R24/1200 FG OVC030

44/39 ALSTG 29.80 RMK PA +712 DA +21 54/CJM

RECEIVED 29/0315Z

NAIRAD 07-200

THIS IS AN AIRAD

RECEIVED 29/0313Z

ALSTG: 29.80 PA: +712 TMP: 44 DA: +21

THIS IS FOR UP TO 6 LINES OF ATC INFORMATION

LWNS/ATC Main Display

UNIT 10: LWNS/ATC



- **Viewing Alternate ICAO FCF Dataset Products.**
 - Select **BASE 1 - 5** for Alternate ICAOs.
 - Alternate 5 ICAO's Displayed in Order Configured by System Manager.
 - LWNS Subscription Service -> Active Positions.
 - Select **OBS/AIRAD/UMSG** to Display Latest Observations.
 - Displayed as "OBS/AA" on ATC Window.
 - Latest Observation Displayed First.
 - Select **TAF** to Display Latest TAF.
 - Displayed as "TAF" on ATC Window.
 - All Other Product Type Selections are Not Applicable.

UNIT 10: LWNS/ATC

- **Viewing Alternate ICAO FCF Dataset Products.**
 - ATC Queries Every 60 Seconds for Updated A/N Products.
 - Select or Scroll Through Displayed Product(s).

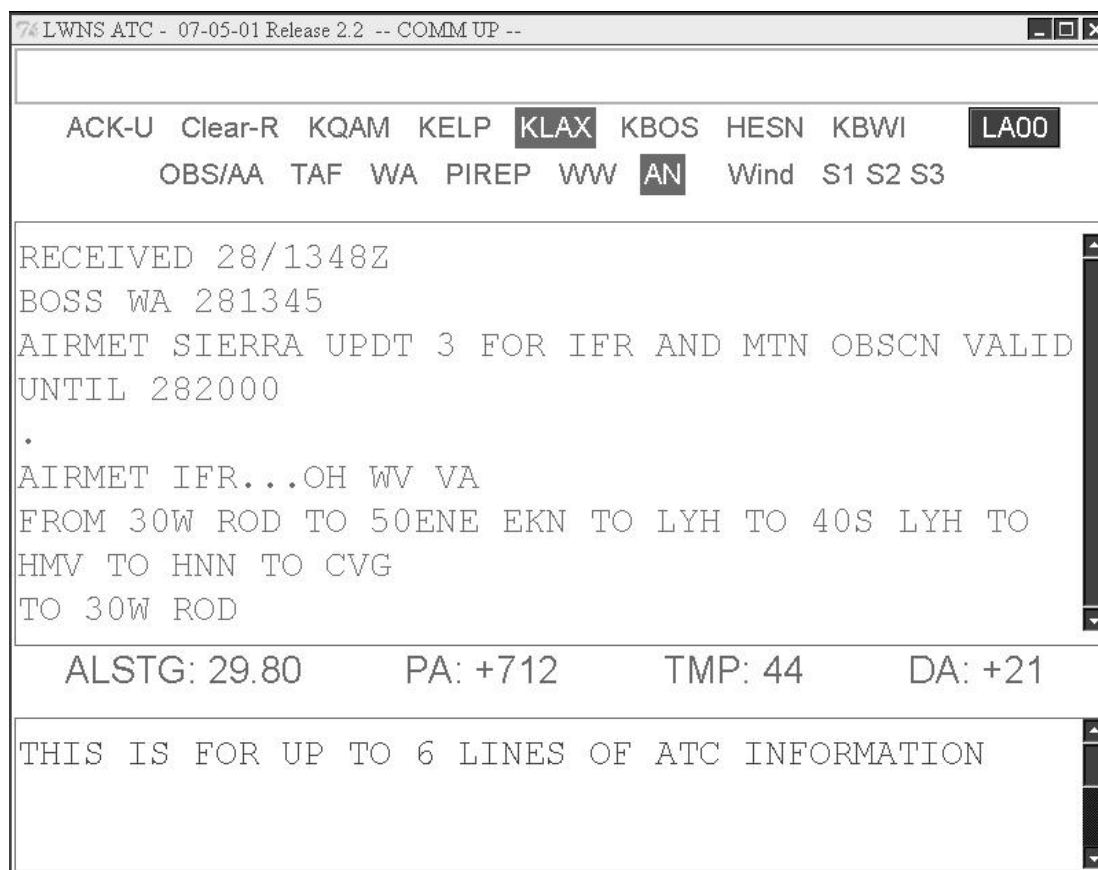
UNIT 10: LWNS/ATC

- **Viewing Alphanumeric Subscription Products.**

- Select **AN** to Display All the Most Current Subscribed A/N Products.
 - Displayed as “AN” on ATC Window.
 - Subscribed A/N Products are Concatenated into a Single List.
 - Configured by System Manager.
 - LWNS Subscription Service -> Local ATC Alphanumeric Products.
 - Selected ICAO is Irrelevant.
 - ATC Queries Every 60 Seconds for Updated A/N Products.
- Select Product  or  Scroll Through Displayed

TRAINING COURSE

UNIT 10: LWNS/ATC



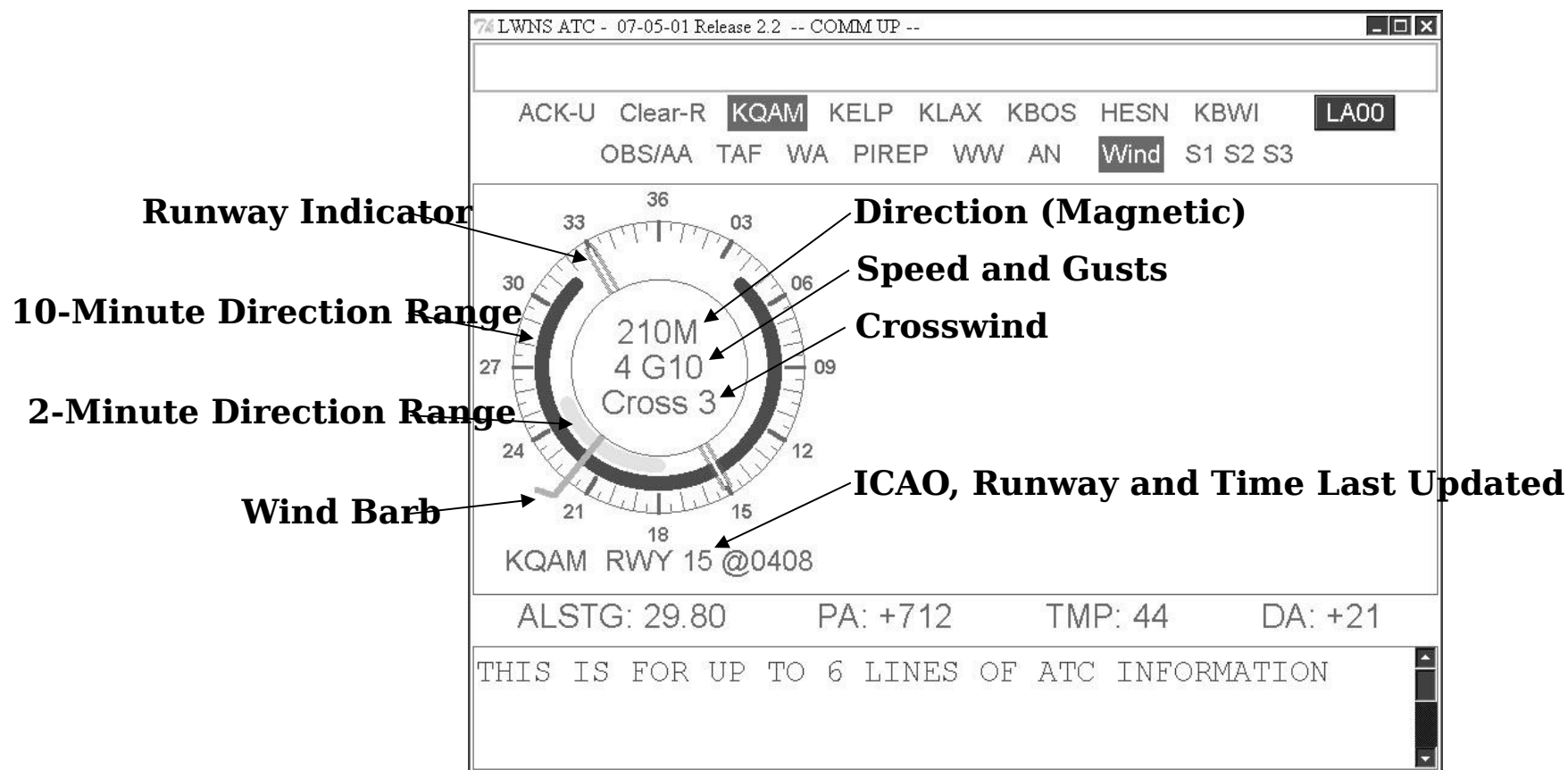
Other A/N Products Display

UNIT 10: LWNS/ATC

- **Viewing AOS Wind Data.**
 - Select **WIND** to Display the Most Current AOS Wind Data.
 - Displayed as “Wind” on ATC Window.
 - Selected ICAO is Irrelevant.
 - Displays Current Direction, Speed, Gust, Crosswind, and 2 and 10-Minute Direction Range.
 - ATC Queries Every 60 Seconds for Updated Wind Data.

TRAINING COURSE

UNIT 10: LWNS/ATC



AOS Wind Data Display

TRAINING COURSE

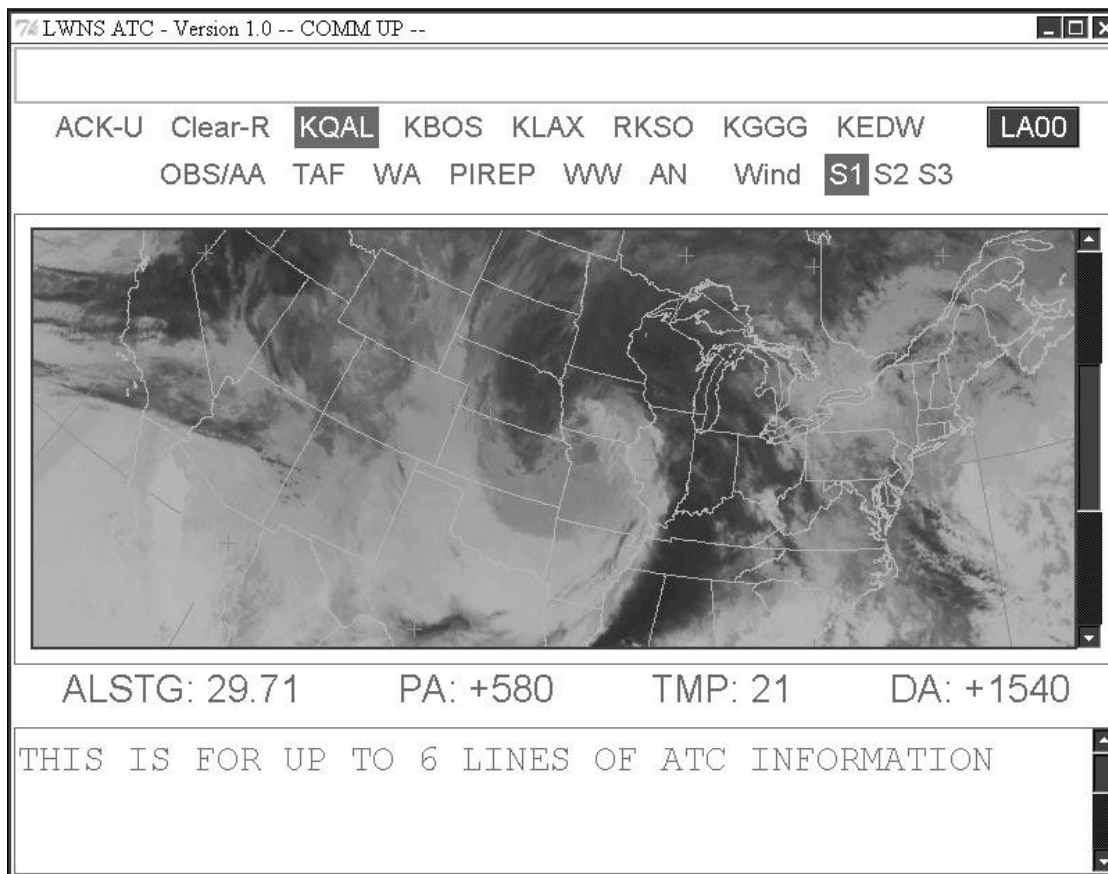
UNIT 10: LWNS/ATC

- **Viewing Graphic Products.**
 - Select **SLOT 1**, **SLOT 2**, or **SLOT 3** to Display the Most Current Subscribed Graphic Product.
 - Displayed as “S1”, “S2”, and “S3” on ATC Window.
 - Configured by System Manager.
 - LWNS Subscription Service ->Local ATC Graphic Products.
 - Selected ICAO is Irrelevant.
 - Loops Automatically Start Looping.
 - ATC Queries Every 10 Minutes for Updated Graphic Products.
 - Re-select **SLOT 1**, **SLOT 2**, or **SLOT 3** to Query for Updated Products Manually.
 - Select or Scroll Through Displayed Product.



TRAINING COURSE

UNIT 10: LWNS/ATC



Graphic Data Display

UNIT 10: LWNS/ATC

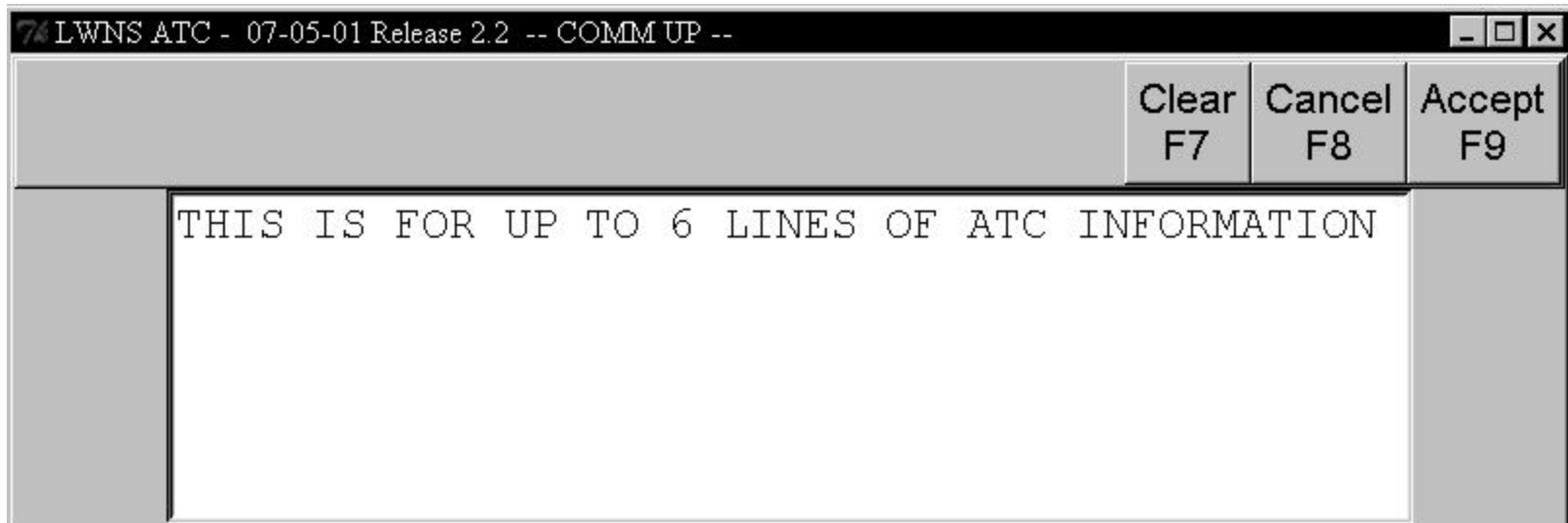
- **Other KeyPad Keys.**
 - HELP. For Future Use.
 - LWNS/AOS. For Future Use.
 - NEW PROD. Hot-Key to Display Newest A/N Product(s).

UNIT 10: LWNS/ATC

- **Entering ATC Information.**
 - Allowed Only From the ATC with Attached Keyboard.
 - Select <F10>, the ATC Information Entry Panel is Displayed.
 - Enter Up to 2000 Characters of Text.
 - Server Will Truncate if Greater than 2000 Characters.
 - Select **Accept** or <F9> to Save Information.
 - Information Will Be Displayed at All LWNS/ATC's.
 - Select **Cancel** or <F8> to Cancel Input and Return to ATC Display.
 - Select **Clear** or <F7> to Remove Previous/Current Entry.
 - Use **SELECT** to Scroll Through Displayed ATC Information on ATC Main Display.

TRAINING COURSE

UNIT 10: LWNS/ATC



The screenshot shows a window titled "74 LWNS ATC - 07-05-01 Release 2.2 -- COMM UP --". The window has a title bar with standard minimize, maximize, and close buttons. Below the title bar is a header area with three buttons: "Clear F7", "Cancel F8", and "Accept F9". The main area of the window is a text input field containing the text "THIS IS FOR UP TO 6 LINES OF ATC INFORMATION".

ATC Information Entry Panel

TRAINING COURSE

UNIT 10: LWNS/ATC

74 LWNS ATC - 07-05-01 Release 2.2 -- COMM UP --

LWW <DCwa> number 07-005 for KQAM at 29/0355Z f...

ACK-U Clear-R **KQAM** KELP KLAX KBOS HESN KBWI **LA00**

OBS/AA TAF WA PIREP WW AN Wind S1 S2 S3

RECEIVED 29/0354Z

KQAM **SPECT** **0300Z** **VRB03KT** **4800** R24/1200 **FG** **OVC030**

44/39 **ALSTG 29.80** RMK **PA +712** **DA +21** **54/CJM**

RECEIVED 29/0315Z

NAIRAD 07-200

THIS IS AN AIRAD

RECEIVED 29/0313Z

ALSTG: 29.80 PA: +712 TMP: 44 DA: +21

THIS IS FOR UP TO 6 LINES OF ATC INFORMATION

ATC Information

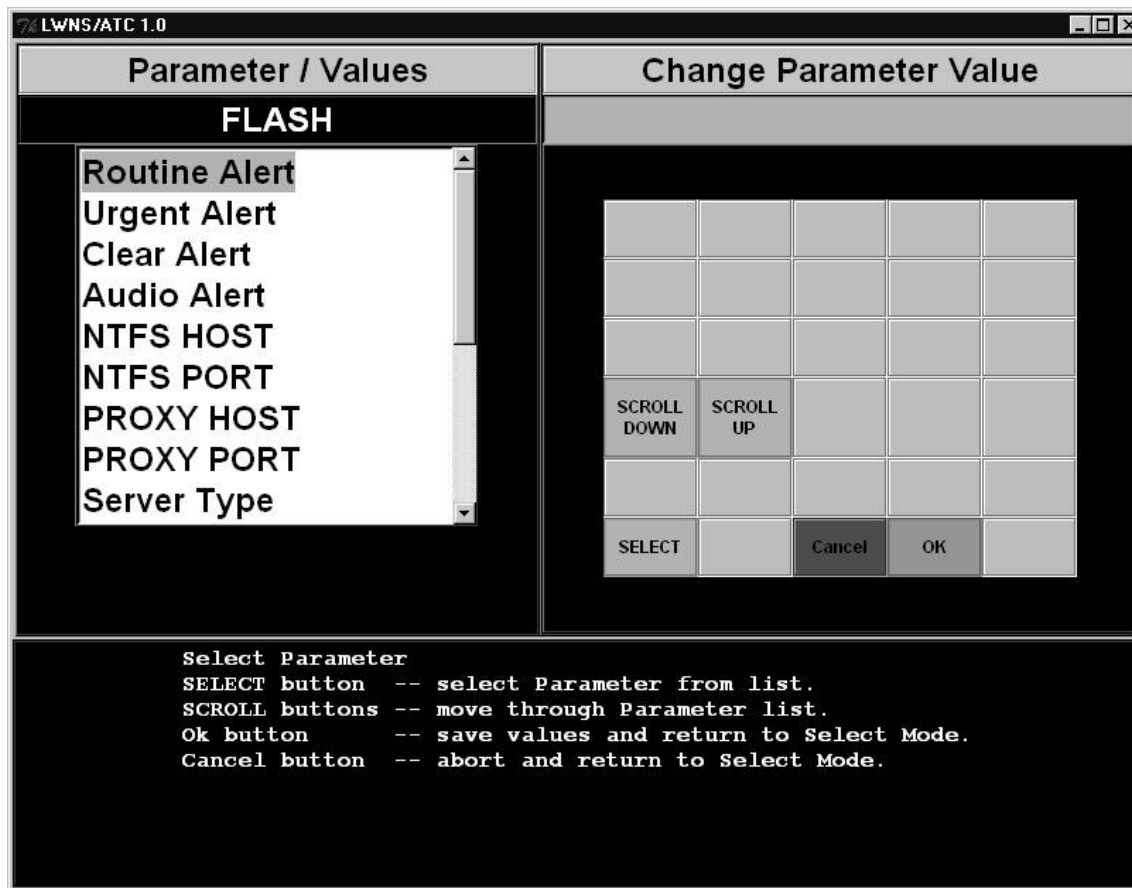
LWNS/ATC Main Display

UNIT 10: LWNS/ATC

- **Configuration Panel.**
 - Select **Config** From KeyPad to Display ATC Configuration Panel.
 - Select Options From KeyPad Using Relative Positions On Change Parameter Value Area in ATC Configuration Panel.
 - Most Options Are Used Only For Maintenance Purposes.

TRAINING COURSE

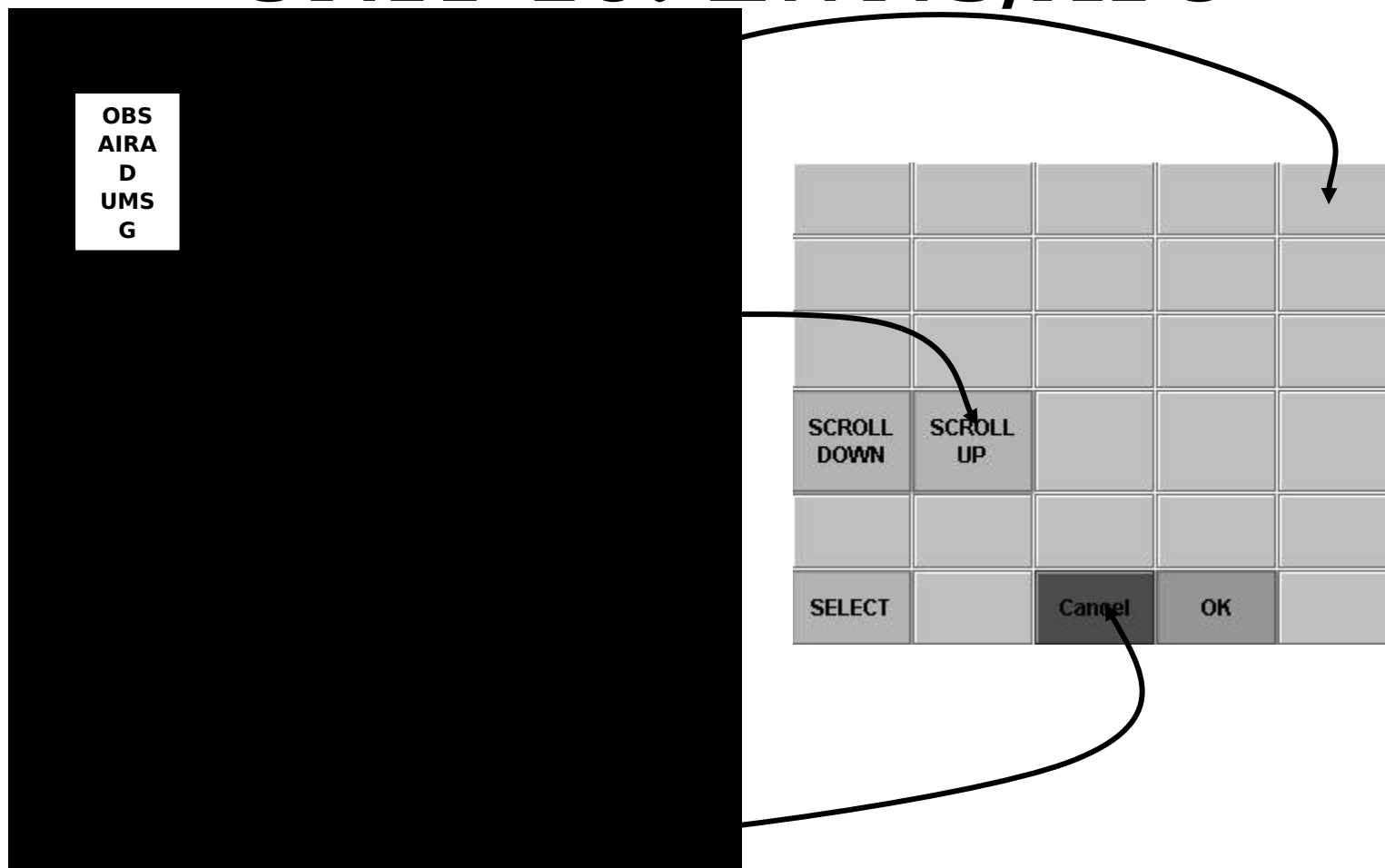
UNIT 10: LWNS/ATC



LWNS/ATC Configuration Panel

TRAINING COURSE

UNIT 10: LWNS/ATC





LWNS/ATC Keypad-Configuration Panel Mappings

TRAINING COURSE

UNIT 10: LWNS/ATC

- **Configuration Panel.**
 - Common Mappings.

Configuration Panel		KeyPad
SELECT	<SELECT>	
Cancel	<ESC> (2)	
OK	<CONFIG>	
SCROLL DOWN		
SCROLL UP		
CHANGE	<SELECT>	
Backspace	<ESC> (2)	
MODE	<ESC> (1)	

UNIT 10: LWNS/ATC

- **Configuration Panel.**

- Options.

- Routine Alert. Routine Alert Display Setting.
 - FLASH, NONE, NORMAL, BOLD, REVERSE.
 - Urgent Alert. Urgent Alert Display Setting.
 - FLASH, NORMAL, BOLD, REVERSE.
 - Clear Alert. Clear Routine Alert Action.
 - ALL or SINGLE (One at a Time).
 - Audio Alert. Turns On/Off Routine Audio Alerts per ICAO.
 - NTFS HOST. NTFS Server IP Address.
 - NTFS PORT. NTFS Server Web Server Port Number.
 - PROXY HOST. Proxy IP Address (Optional).
 - PROXY PORT. Proxy Port Number (Optional).

UNIT 10: LWNS/ATC

- **Configuration Panel.**
 - Options.
 - Server Type. Type of Web Server Connection.
 - Normal or SSL.
 - Server ID. NTFS Server Site Number.
 - ATC ID. ATC Position ID.
 - Connection Type. Type of ATC-to-NTFS Server Connection.
 - LAN or MODEM.
 - Title Text Color. Color of Title Text.
 - Viewer Text Color. Color of Viewer Text.
 - Info Text Color. Color of ATC Information Text.
 - SHUTDOWN. Select to Reboot Client PC.

UNIT 11: MISCELLANEOUS

UNIT 11: MISCELLANEOUS

- **Scheduled Macro Completions are Now Routine Alerts.**
- **Use “.N” in Product Retention Table to Retain Recieved NITF Images.**

UNIT 11: MISCELLANEOUS

- **Database Modifications.**

- Added New Purge Category for Receipt Acknowledgements.
 - Category 31 - Non-User Editable.
- Added New Purge Category for NITF Images.
 - Category 32 - Non-User Editable.
- Added New Purge Category for TAFVER Data.
 - Category 10 - Non-User Editable.
- Images Now Stored as “png” Images.
 - Storage Now Increased to ~1450 METSAT, and ~2800 NEXRAD Images.
- Increased External A/N Storage to 140MB.

UNIT 11: MISCELLANEOUS

- **Weather Calculator.**

- Added Capability to Prefill Observational Data.
 - Enter Desired ICAO in ICAO Field.
 - Select **Time** (Current (C-0) to 12 Observations in the Past).
 - Uses Both METAR's and SPECI's.
 - Select **Prefill Data**.
 - Any Available Data Will be Prefilled.
 - Elevation and Runway Heading Retrieved From WMO Table.
 - Type and Time of Data Displayed in Bottom Status Line.
 - Select **Print** to Print Input Data and Any Computed Data in **Output** Field.
 - Printing Only Available on Clients.

TRAINING COURSE

UNIT 11: MISCELLANEOUS

ICAO Field

Time

Prefill Button

Status Line

Weather Calculator

UNIT 11: MISCELLANEOUS

- **Stand-Alone LWNS Server.**
 - Only Operational Difference is Most RSM Options, and Some NTFS Main Workspace Selections, are Not Available.
 - Available Options From LWNS Server:
 - CD Operations->Checkpoint->Read and Write.
 - CSSO Access Control.
 - Local ICAO Administration->Site Data Information.
 - LWNS Subscription Service.

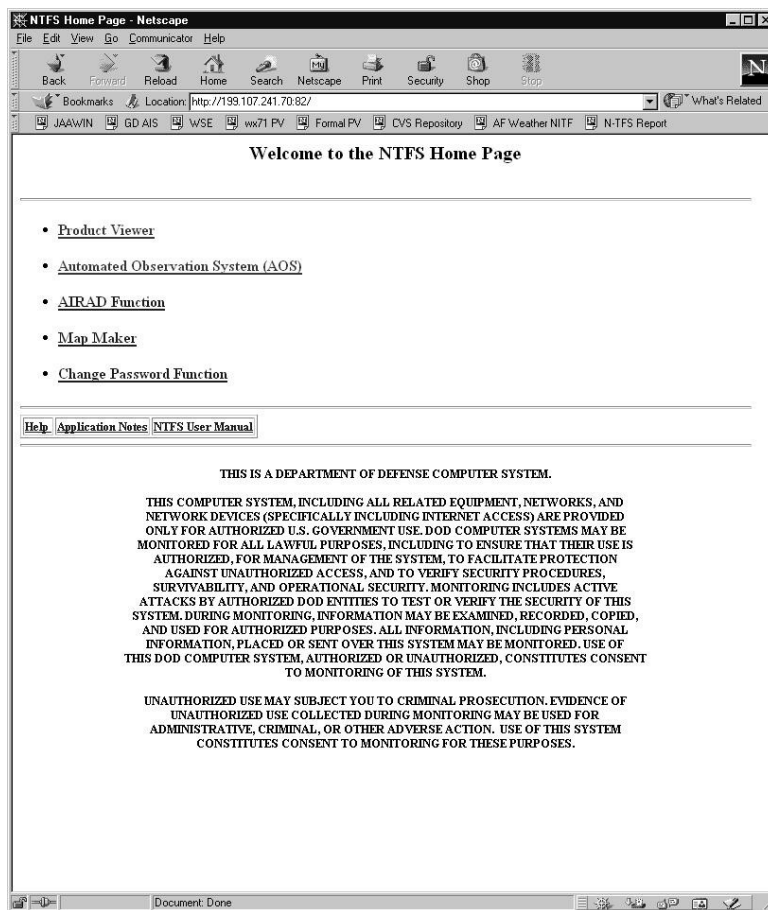
UNIT 11: MISCELLANEOUS

- **Stand-Alone LWNS Server.**
 - Unavailable Options From NTFS Main Workspace Menu.
 - Severe Wx.
 - Web HTML Admin.

UNIT 11: MISCELLANEOUS

- **High-Resolution Terrain Backgrounds from Browser.**
 - From the NTFS Home Page, Select “Map Maker”.
 - Protected by Usual Username/Password Authentication.

UNIT 11: MISCELLANEOUS



Basic NTFS Home Page

TRAINING COURSE

UNIT 11: MISCELLANEOUS

The screenshot shows a Netscape browser window titled "MAP MAKER - Netscape". The address bar displays the URL "http://193.107.241.71:82/cgi-bin/cgimap_server/L_wrap". The browser's menu bar includes File, Edit, View, Go, Communicator, and Help. The toolbar contains icons for Back, Forward, Reload, Home, Search, Netscape, Print, Security, Shop, and Stop. The bookmarks bar shows "ML Direct", "GD WSE", "NFL", "DallasCowboys", and "HoustonTexans".

The main content area is titled "MAP MAKER OPTIONS" and contains four sections of settings:

- Location Options:**
 - ☒ Background List: None
 - ☒ Lat/Long Center Point
 - Projection: Polar North
 - Radius (10 to 10,000): 5000 (km)
 - Latitude (0 to 90): 0
 - Longitude (0 to 180): 0
 - ☒ N ☒ S
 - ☒ E ☒ W
- Line / Label Options:**
 - Land Color: None
 - Lat/Lon Color: Black
 - Political Boundary Color: Black
 - Inland Water Color: None
 - Road Color: None
 - Label Color: None
 - Population Threshold: None
- Terrain Coloring Options:**
 - Sun Elevation Angle: None
 - Sun Azimuth Angle: None
 - Shading Options: ReliefShading-terrain1
- Image Options:**
 - Desired Size of Map: 1024 pixels
 - Background Color: Navy
 - Image Type: 8bits-Color-Alpha-PNG

Below the settings sections is a "Get Map" button. At the bottom of the browser window, the status bar shows "Document Done".

Map Maker Page

UNIT 11: MISCELLANEOUS

- **High-Resolution Terrain Backgrounds from Browser.**
 - Location Options.
 - Background List - Select From Standard/AOI NTFS Server Backgrounds.
 - Lat/Long Center Point.
 - Projection - Select Polar North/South or Mercator.
 - Radius - Enter Radius in Kilometers (10-10000).
 - Latitude - Enter Center Point Latitude (N/S).
 - Longitude - Enter Center Point Longitude (E/W).

UNIT 11: MISCELLANEOUS

- **High-Resolution Terrain Backgrounds from Browser.**
 - Terrain Coloring Options.
 - Sun Elevation Angle - Select Elevation of Sun to Enhance Relief Affect.
 - Sun Azimuth Angle - Select Direction of Sun to Enhance Relief Affect
 - Shading Options - Select Pre-Defined Shading Curves.

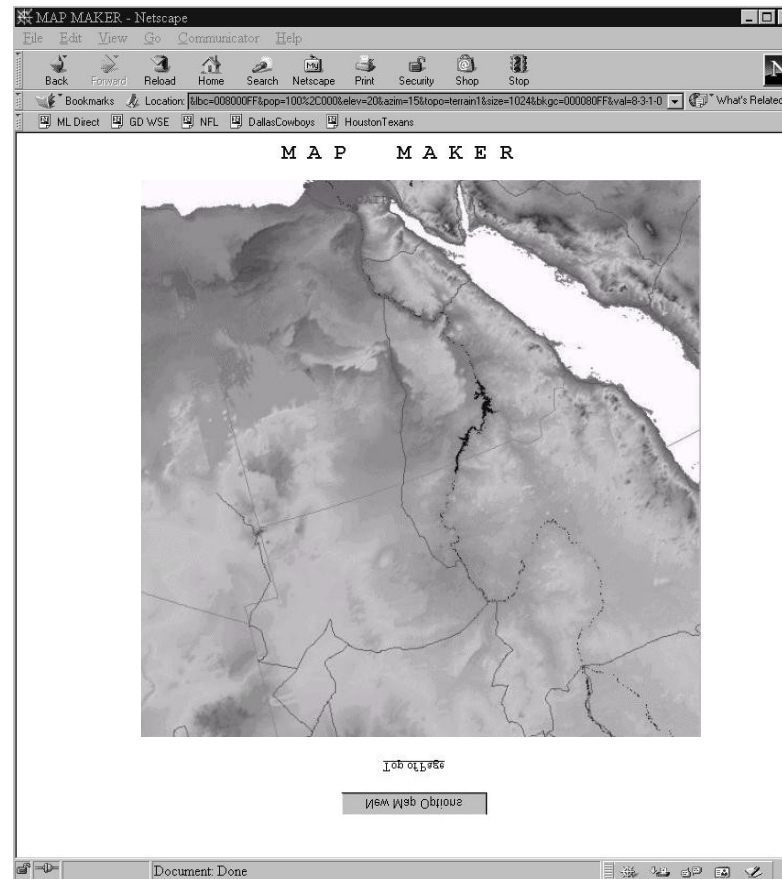
UNIT 11: MISCELLANEOUS

- **High-Resolution Terrain Backgrounds from Browser.**
 - Line/Label Options.
 - Land Color - Select Desired Color of Land.
 - Lat/Lon Color - Select Desired Color of Lat/Lon Lines.
 - Political Boundary Color - Select Desired Color of Political Boundary Lines.
 - Inland Water Color - Select Desired Color of Inland Water.
 - Road Color - Select Desired Color of Roads.
 - Label Color - Select Desired Color of City Labels.
 - Population Threshold - Select Population Threshold Value When to Start Creating City Labels.

UNIT 11: MISCELLANEOUS

- **High-Resolution Terrain Backgrounds from Browser.**
 - Image Options.
 - Desired Size of Map - Select map Size in Pixels.
 - Background Color - Select Map Background Color.
 - Image Type - Select Type of Image.
 - JPEG or PNG.
 - Color or B/W.
 - Alpha/No Alpha (Transparency).
 - Select GET MAP When Options are Selected.

UNIT 11: MISCELLANEOUS



Completed Map Display

UNIT 12: NTFS PROCESS FLOW

QUESTIONS & ANSWERS